SERVICE MANUAL

L295T



LCD PC

LCD Computer

L295T Series

Service Manual

Notice

Version 1.0
November 2005

Trademarks

About this Manual

This manual is intended for service personnel who have completed sufficient training to undertake the maintenance and inspection of personal computers.

It is organized to allow you to look up basic information for servicing and/or upgrading components of the computer.

The following information is included:

Chapter 1, Introduction, provides general information about the location of system elements and their specifications.
Chapter 2, Disassembly, provides step-by-step instructions for disassembling parts and subsystems and how to upgrade elements of the system.
Appendix A, Part Lists
Appendix B, Schematic Diagrams

Related Documents

You may also need to consult the following manual for additional information:

User's Manual on CD
This describes the computer's features and the procedures for operating the computer and its ROM-based setup program. It also describes the installation and operation of the utility programs provided with the computer.

Contents

1: Introduction

Overview

This manual covers the information you need to service or upgrade the L295T LCD computer. Information about operating the computer (e.g. getting started, and the *Setup* utility) is in the *User's Manual*. Information about drivers (e.g. VGA & audio) is also found in *User's Manual*. That manual is shipped with the computer.

Operating systems (e.g. *DOS*, *Windows 9x*, *Windows NT 4.0*, *Windows 2000*, *Windows XP*, *OS/2 Warp*, *UNIX*, etc.) have their own manuals as do application software (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

The L295T LCD computer is designed to be upgradeable. See ***"Disassembly" on page 2 - 1*** for a detailed description of the upgrade procedures for each specific component. Please note the warning and safety information indicated by the "🔔" symbol.

The balance of this chapter reviews the computer's technical specifications and features.

System Specifications

Latest Specification Information

The specifications listed in this Appendix are correct at the time of going to press. Certain items (particularly processor types/speeds and CD/DVD device types) may be changed or updated due to the manufacturer's release schedule. Check with your service center for details.

Table 1 - 1
System Specifications

Feature	Specification	
Processor Types	Intel® Pentium® 4 630/ 640/ 650 Processor with HT Technology LGA775 Package (775-pin)	(90nm) 90 Nanometer Process Technology, 2MB On-Die L2 Cache & 800MHz Front Side Bus - **3.0/ 3.2/ 3.4** GHz
	Intel® Pentium® 4 520/ 530/ 540/ 550 Processor with HT Technology LGA775 Package (775-pin)	(90nm) 90 Nanometer Process Technology, 1MB On-Die L2 Cache & 800MHz Front Side Bus - **2.8/ 3.0/ 3.2/ 3.4** GHz
	Intel® Pentium® 4 520J/ 530J/ 540J/ 550J Processor with HT Technology LGA775 Package (775-pin)	(90nm) 90 Nanometer Process Technology, 1MB On-Die L2 Cache & 800MHz Front Side Bus - **2.8/ 3.0/ 3.2/ 3.4** GHz
	Intel® Celeron® D 325J/ 330J/ 335J/ 340J/ 345J/ Processor LGA775 Package (775-pin)	(90nm) 90 Nanometer Process Technology, 256K On-Die L2 Cache & 533MHz Front Side Bus - **2.53/ 2.66/ 2.8/ 2.93/ 3.06** GHz
Core Logic	Intel 865GV + ICH5	
LCD Options	15.0" XGA Flat Panel TFT (1024*768)	
Security	Security (Kensington® Type) Lock Slot	BIOS Password

Feature	Specification	
Memory	Dual Channel Two 200-Pin SODIMM Sockets, Supporting DDR 333 / DDR 400 MHz Modules Only (**Note**: Do Not Use Other Module Types)	Memory Expandable up to 2GB (256/ 512/ 1024 MB DDR Modules)
Video Controller	865GV Integrated Chipset Supports 3D Hardware Motion Compensation	Shared Memory Architecture (Supports up to 64MB of Dynamically Allocated Shared Memory as Video Memory)
BIOS	4MB Flash ROM	Phoenix BIOS
Storage	One Fixed 3.5", 25.4mm Height Hard Disk Drive Supporting Both IDE and SATA Interfaces One 3.5", 1.44MB 3-Mode Floppy Disk Drive (**Exchangeable With 6-in-1 Card Reader Module or Video-Capture Module**) One changeable 12.7mm(h) Optical Device (CD/DVD) Type Drive (see ***"Optional" on page C - 4*** for drive options)	
Audio	AC'97 2.2 Compliant Sound Blaster™ Compatible Windows Sound System™ Compatible	2 * Built-In 2W Main Stereo Speakers One Headphone-Out Jack One Microphone-In Jack One Line-In Jack
Interface	One Serial Port One Parallel Port One External Monitor Port Two PS/2 Ports (Keyboard & Mouse) One Headphone-Out Jack One Microphone-In Jack One Line-In Jack Four USB 2.0 Ports One RJ-45 Jack for LAN One RJ-11 Jack for Modem One IEEE 1394 Port (Un-Powered) Enabled by Mini-PCI /IF IEEE 1394 Module (**optional**)	
PC Card Sockets	Supports Two Type II Slots or One Type III PCMCIA Slot (Cardbus Support)	

Feature	Specification	
Communication	1000Mb Base-T Gigabit LAN Built-In (10/100Mb Base-T Compliant) Interchangeable V.90 (V.92 Compliant) / 56K MDC Modem OR 56K MDC Modem (V.92 Compliant) & Bluetooth Combo Module (**Factory Option**)	802.11 b/ g Wireless LAN Module with Mini-PCI Interface (**Optional**) OR IEEE 1394 Module with Mini-PCI Interface (**Optional**)
Power Management	Supports ACPI v1.0b Supports Hibernate Mode	Power Button as Sleep/Resume Key Supports Standby Mode
Power	Internal Switching Power Supply Full Range -160W	
Environmental Spec	Temperature Operating: 5°C ~ 35°C Non-Operating: -20°C ~ 60°C	Relative Humidity Operating: 20% ~ 80% Non-Operating: 10% ~ 90%
Physical Characteristics	369mm (H) * 384mm (W) * 188mm (D) Fan Bearing: Two Ball Bearings	8.9Kg Tilt (0-15 deg), Swivel (270 deg)
Optional	Optical Drive Module Options: CD-ROM Drive Module Combo Drive Module DVD-ROM Drive Module DVD-Dual Drive Module Options Below Exchangeable with Floppy Disk Drive Module: 6-in-1 Card Reader Module - For MD/ CF/ SM/ MS/ SD/ MMC Formats (**Factory Option**) Video Capture Card Module Supporting S-Video-In and AV Terminal (**Factory Option**)	MDC Modem OR MDC & Bluetooth Modem Combo Module (**Factory Option**) 802.11 b/ g Wireless LAN Module with Mini-PCI Interface (**Optional**) OR IEEE 1394 Module with Mini-PCI Interface (**Optional**)

External Locator - Front View

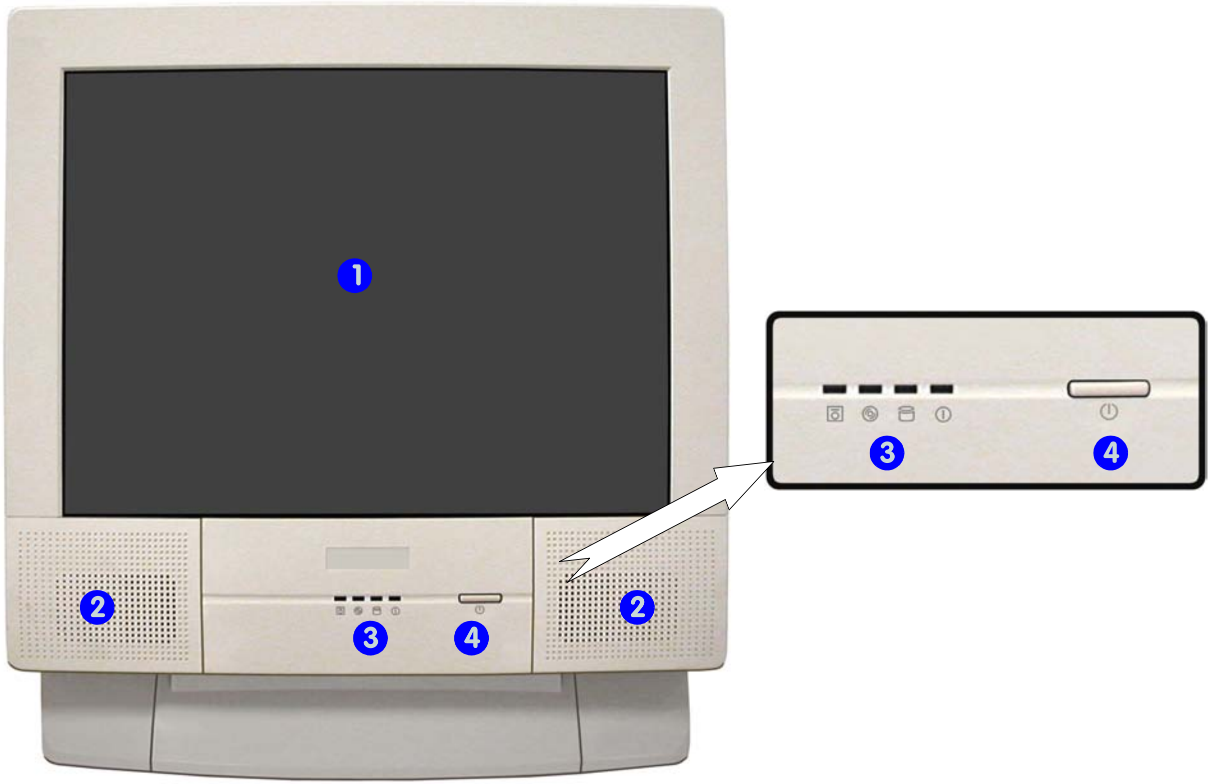


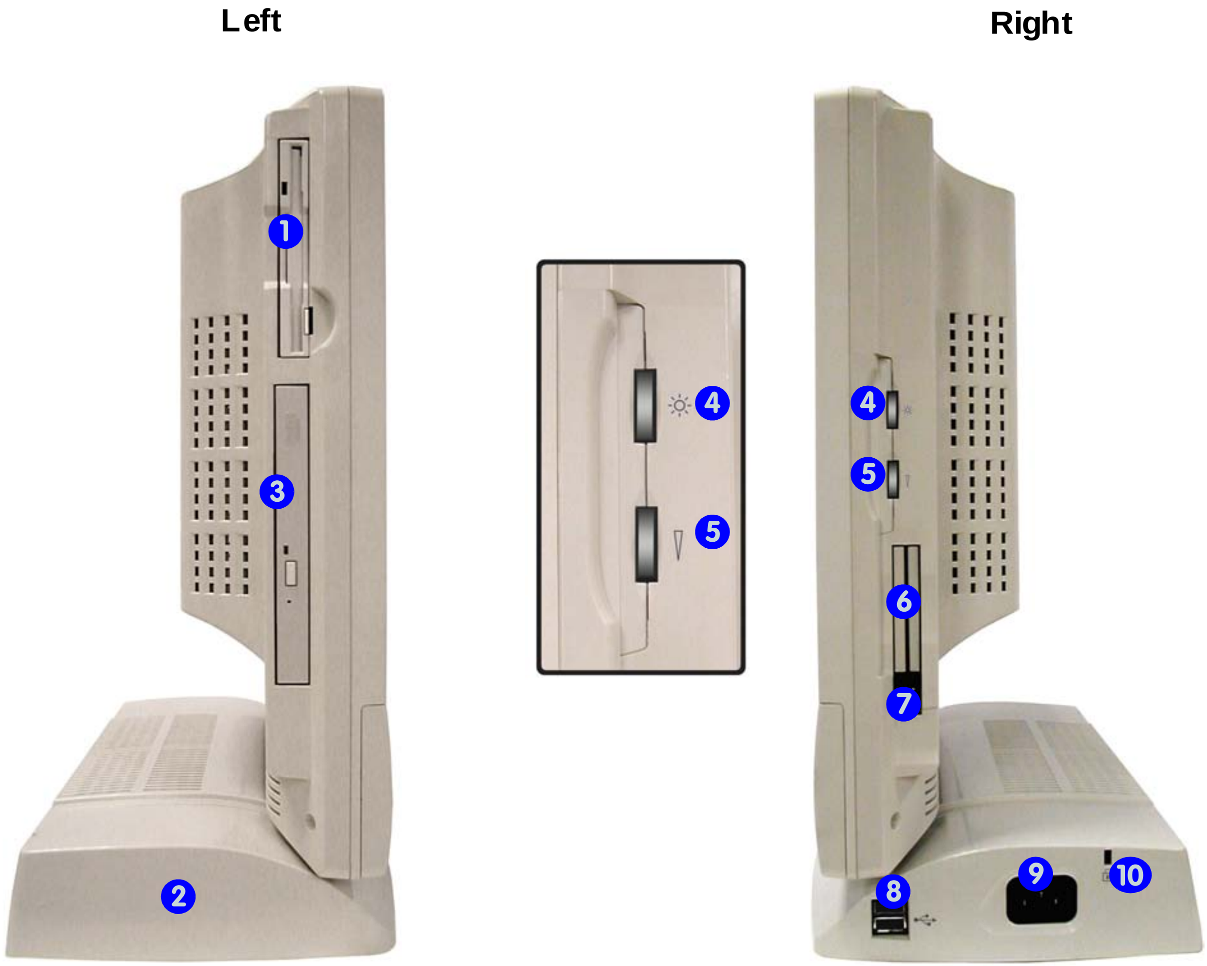
Figure 1 - 1
Front View

1. LCD Panel
2. Speakers
3. LED Activity indicators
4. Power Button

External Location - Left & Right Side Views

Figure 1 - 2
Left & Right Views

1. Floppy Disk Drive*
2. Hard Disk Drive (HDD) Bay
3. CD Device
4. LCD Brightness Control Knob
5. Volume Control Knob
6. Dual PC Card Slots
7. PC Card Eject Buttons
8. Dual USB Ports
9. AC Power-In Port
10. Security Lock Slot



***Floppy Disk Drive & Optional Modules**

If you have **either** the **6-in-1 Card Reader**, or **Video Capture Card options**, then the optional module will replace the **floppy disk drive** module in the slot at point 1.

External Locator - Rear View

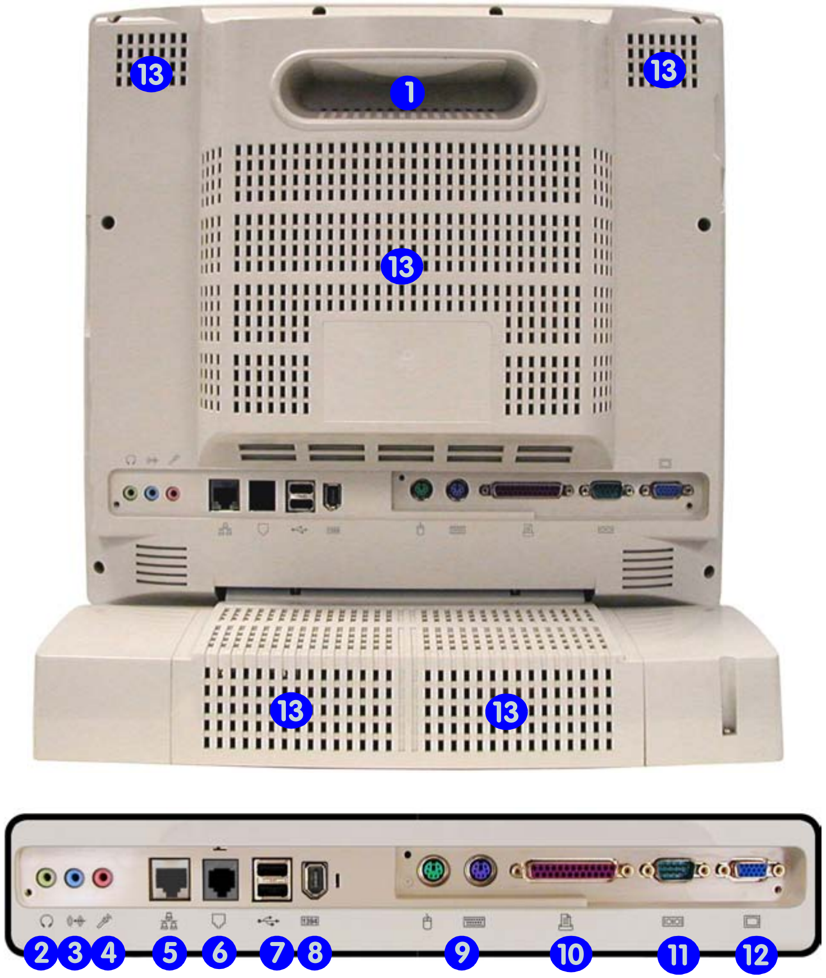


Figure 1 - 3
Rear View

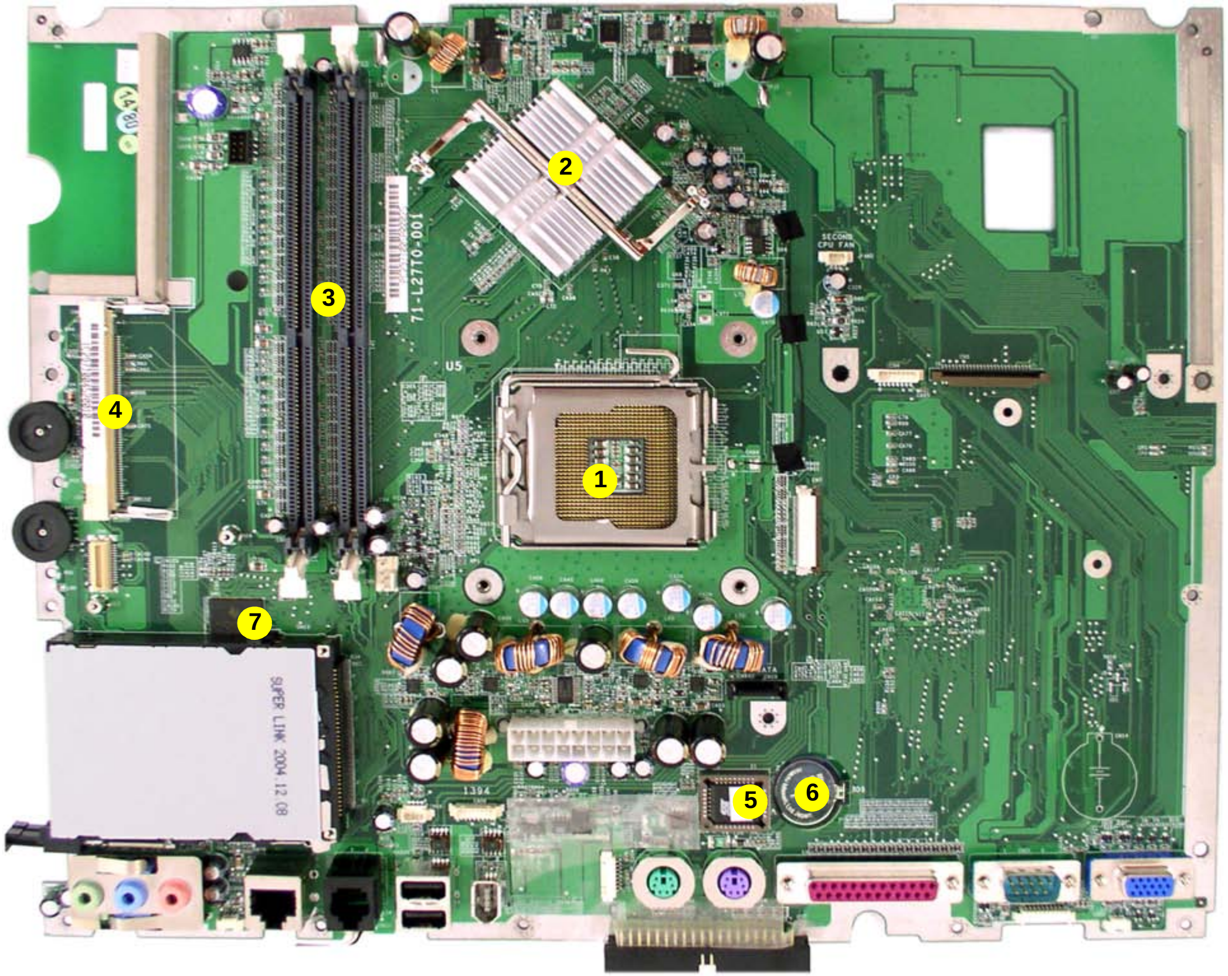
1. Carrying Handle
2. Headphone-Out Jack
3. Line-In Jack
4. Microphone-In Jack
5. RJ-45 LAN Jack
6. RJ-11 Phone Jack
7. Dual USB Ports
8. Unpowered - IEEE 1394 Port
9. PS/2 Mouse & Keyboard Ports
10. Printer/Parallel Port
11. Serial Port
12. External Monitor (CRT) Port
13. Vents

Mainboard Overview - Top

Key Parts

Figure 1 - 4
Mainboard Overview - Top Key Parts

1. CPU Socket (no CPU Installed)
2. Intel Springdale-G (North Bridge)
3. RAM Sockets
4. Mini PCI Socket for WLAN or IEEE1394
5. FLASH BIOS
6. CMOS Battery
7. Cardbus PCI1520



Mainboard Overview - Bottom

Key Parts

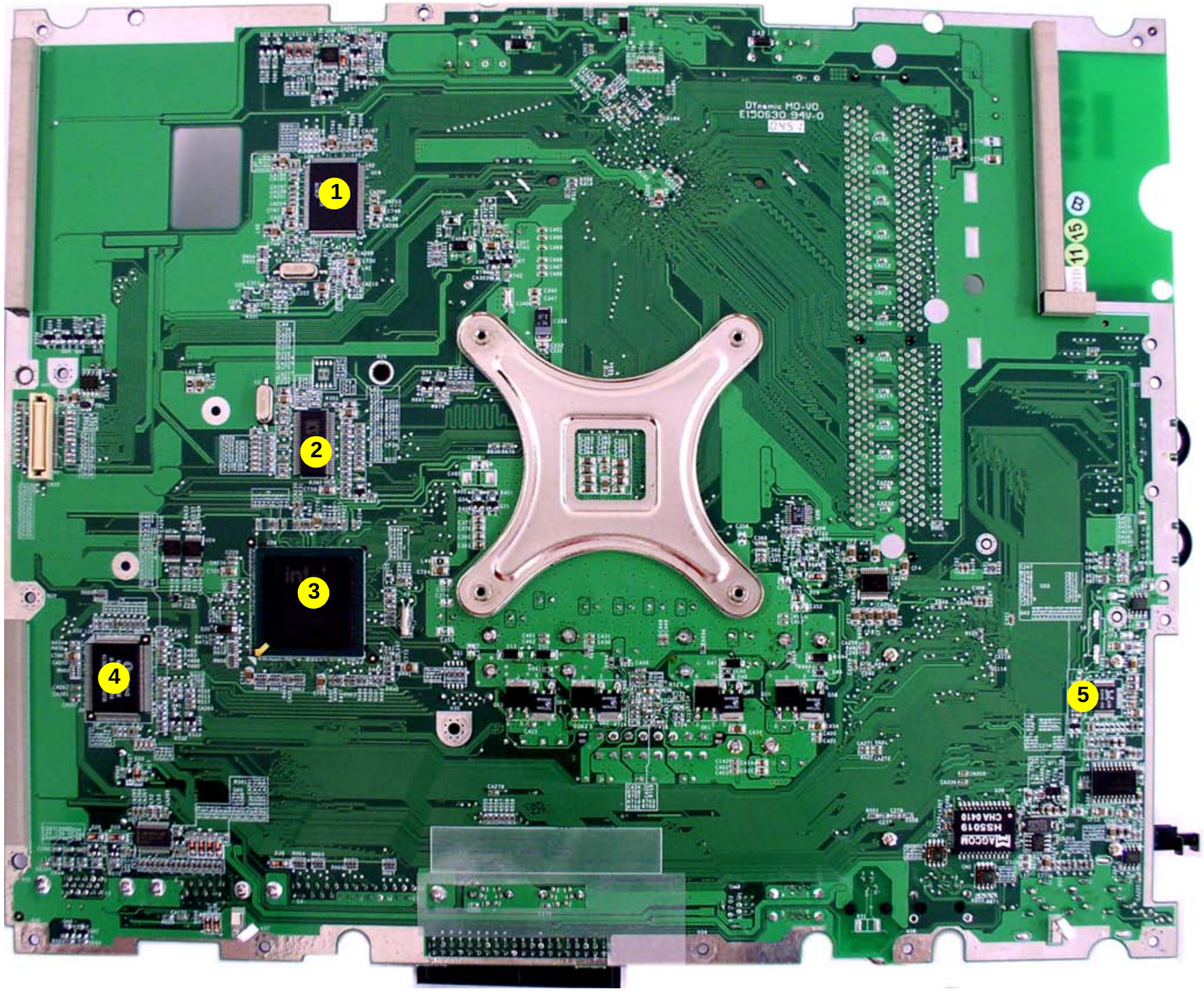


Figure 1 - 5
Mainboard Overview - Bottom Key Parts

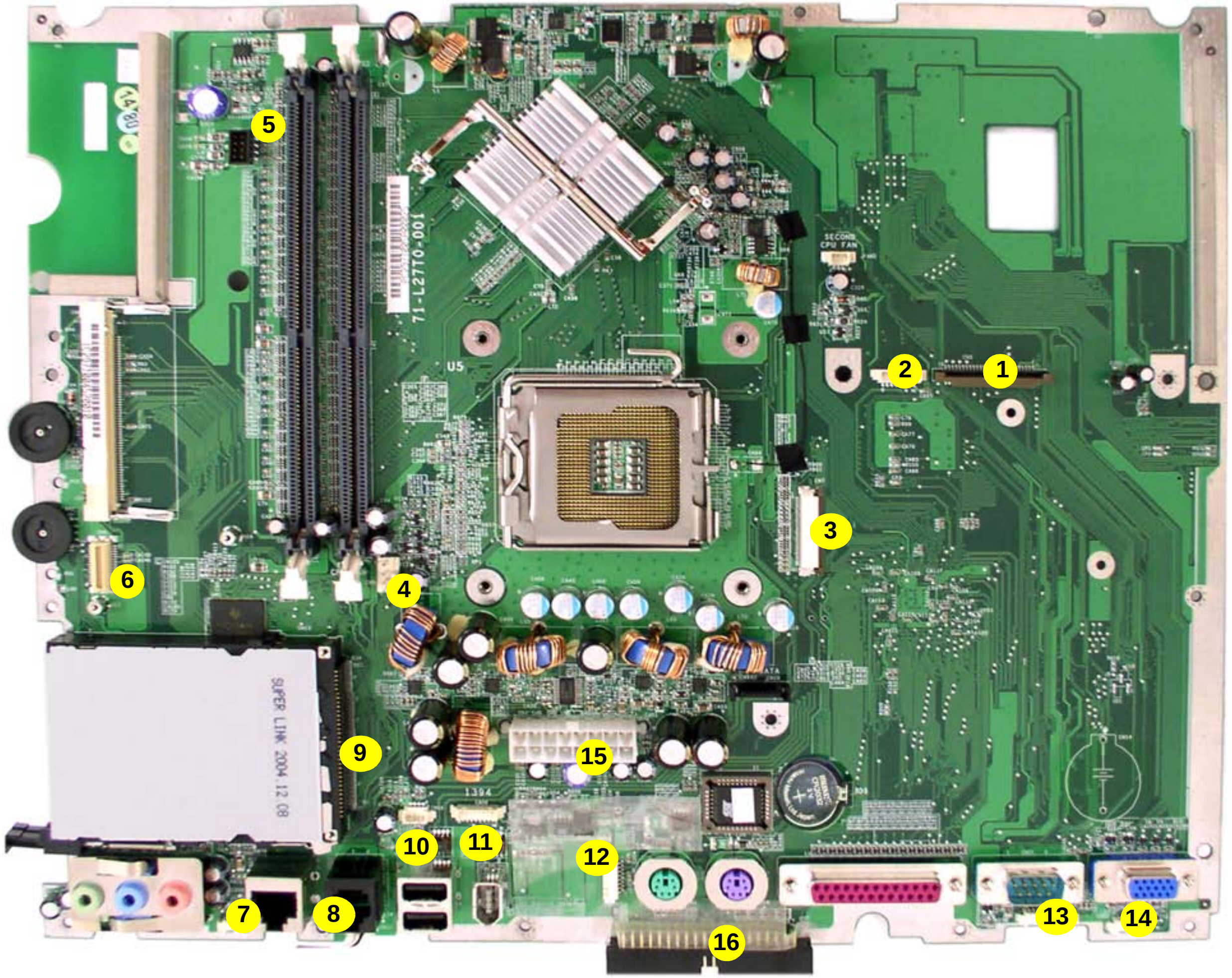
1. Chrontel CH7017A
2. Clock Generator
3. Intel ICH-5 460 mBGA (South Bridge)
4. SUPER I/O Winbond W83627HF
5. AC'97 MDC Module

Mainboard Overview - Top

Cable Connectors and Switches

Figure 1 - 6
Mainboard Top Cable Connectors & Switches

1. Floppy Disk Drive (CN5)
2. TV Port or Touch Screen (Bluetooth use)
3. CD/DVD Device (CN7)
4. Fan Power (CN9)
5. Inverter (CN1)
6. Modem Module
7. Speaker (CN31)
8. Modem Cable (CN33)
9. PC CARD (CN13)
10. Touch Screen (CN16)
11. IEEE1394 (CN36)
12. USB 2.0 (CN17)
13. LED Board (CN30)
14. Speaker (CN32)
15. Power (CN12)
16. Hard Disk (CN34)



Mainboard Overview - Bottom

Cable Connectors and Switches

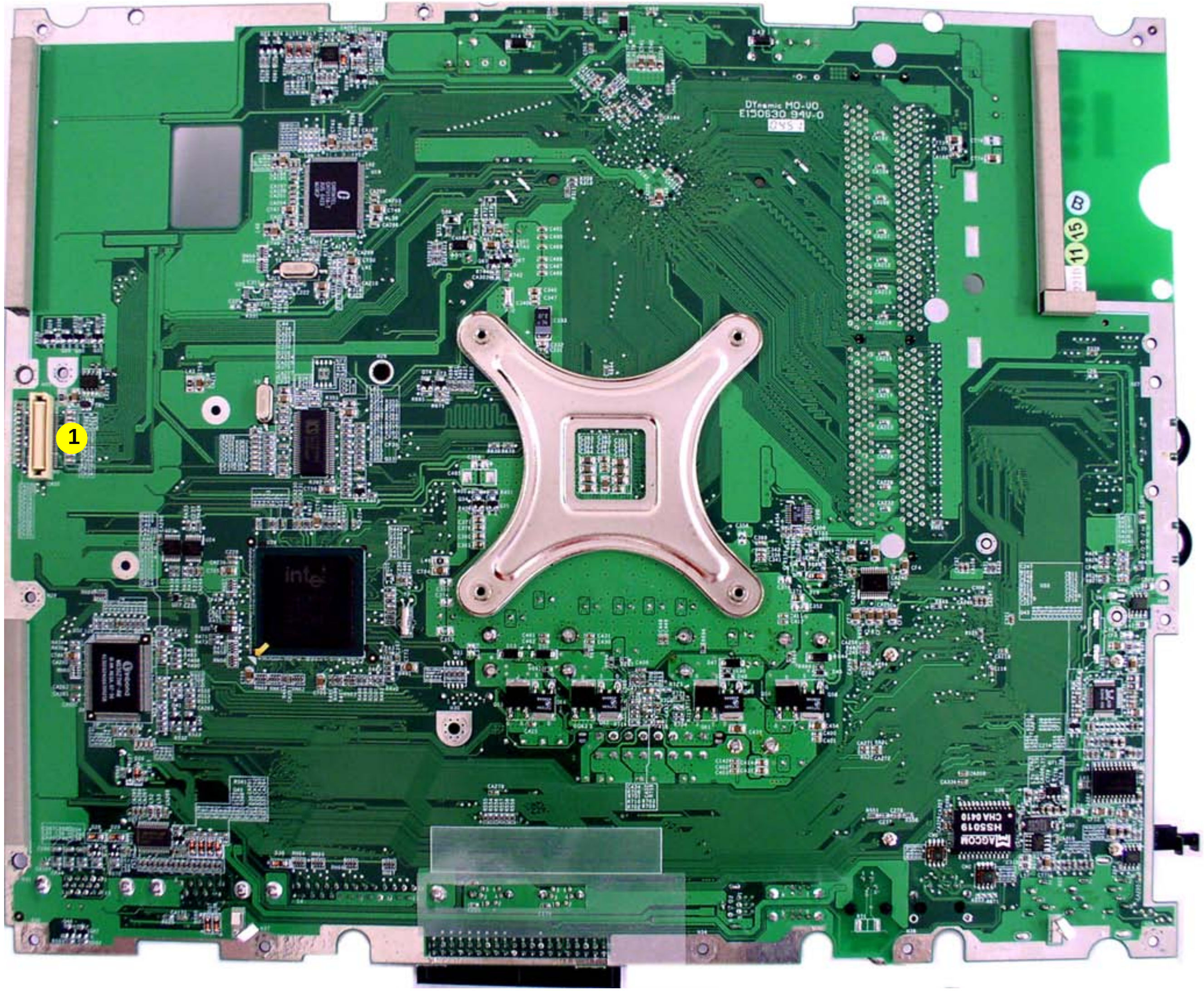


Figure 1 - 7
Mainboard Bottom Cable Connectors & Switches

1. CN35 (LCD Connector)

2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

We suggest you completely review any procedure before you take the computer apart.

Procedures such as upgrading/replacing the RAM, CD device and hard disk are included in the User's Manual but are repeated here for your convenience.

To make the disassembly process easier each section may have a box in the page margin. Information contained under the figure # will give a synopsis of the sequence of procedures involved in the disassembly procedure. A box with a ✎ lists the relevant parts you will have after the disassembly process is complete. **Note**: The parts listed will be for the disassembly procedure listed ONLY, and not any previous disassembly step(s) required. Refer to the part list for the previous disassembly procedure. The amount of screws you should be left with will be listed here also.

A box with a ✎ will provide any possible helpful information. A box with a 🔔 contains warnings.

An example of these types of boxes are shown in the sidebar.

Information and Component Parts

Warning

NOTE: All disassembly procedures assume that the system is turned **OFF**, and disconnected from any power supply, and that all peripheral cables are disconnected (including telephone lines and network cables).

Maintenance Tools

The following tools are recommended when working on the computer:

- M3 Philips-head screwdriver
- M2.5 Philips-head screwdriver (magnetized)
- M2 Philips-head screwdriver
- Small flat-head screwdriver
- Pair of needle-nose pliers
- Anti-static wrist-strap

Connections

Connections within the computer are one of four types:

Locking collar sockets for ribbon connectors	To release these connectors, use a small flat-head screwdriver to gently pry the locking collar away from its base. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Pressure sockets for multi-wire connectors	To release this connector type, grasp it at its head and gently rock it from side to side as you pull it out. Do not pull on the wires themselves. When replacing the connection, do not try to force it. The socket only fits one way.
Pressure sockets for ribbon connectors	To release these connectors, use a small pair of needle-nose pliers to gently lift the connector away from its socket. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Board-to-board or multi-pin sockets	To separate the boards, gently rock them from side to side as you pull them apart. If the connection is very tight, use a small flat-head screwdriver - use just enough force to start.

Maintenance Precautions

The following precautions are a reminder. To avoid personal injury or damage to the computer while performing a removal and/or replacement job, take the following precautions:

1. **Don't drop it**. Perform your repairs and/or upgrades on a stable surface. If the computer falls, the case and other components could be damaged.
2. **Don't overheat it**. Note the proximity of any heating elements. Keep the computer out of direct sunlight.
3. **Avoid interference**. Note the proximity of any high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage components and/or data. You should also monitor the position of magnetized tools (i.e. screwdrivers).
4. **Keep it dry**. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
5. **Be careful with power**. Avoid accidental shocks, discharges or explosions.
   •Before removing or servicing any part from the computer, turn the computer off and detach any power supplies.
   •When you want to unplug the power cord or any cable/wire, be sure to disconnect it by the plug head. Do not pull on the wire.
6. **Peripherals** – Turn off and detach any peripherals.
7. **Beware of static discharge**. ICs, such as the CPU and main support chips, are vulnerable to static electricity. Before handling any part in the computer, discharge any static electricity inside the computer. When handling a printed circuit board, do not use gloves or other materials which allow static electricity buildup. We suggest that you use an anti-static wrist strap instead.
8. **Beware of corrosion**. As you perform your job, avoid touching any connector leads. Even the cleanest hands produce oils which can attract corrosive elements.
9. **Keep your work environment clean**. Tobacco smoke, dust or other air-born particulate matter is often attracted to charged surfaces, reducing performance.
10. **Keep track of the components**. When removing or replacing any part, be careful not to leave small parts, such as screws, loose inside the computer.

Cleaning

Do not apply cleaner directly to the computer, use a soft clean cloth.
Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Disassembly Steps

The following lists the disassembly steps, and on which page to find the related information. **PLEASE PERFORM THE DISASSEMBLY STEPS IN THE ORDER INDICATED.**

To remove the hard disk drive assembly:

1. Remove the hard disk drive assembly *page 2 - 5*

To remove the LCD back cover:

1. Remove the LCD back cover *page 2 - 6*

To remove the system memory:

1. Remove the LCD back cover *page 2 - 6*
2. Remove the system memory *page 2 - 7*

To remove the CPU:

1. Remove the LCD back cover *page 2 - 6*
2. Remove the CPU *page 2 - 8*

To remove the I/O Bracket:

1. Remove the LCD back cover *page 2 - 6*
2. Remove the I/O bracket *page 2 - 10*

To remove the modem:

1. Remove the LCD back cover *page 2 - 6*
2. Remove the I/O bracket *page 2 - 10*
3. Remove the modem *page 2 - 11*

To remove the floppy disk drive assembly:

1. Remove the LCD back cover *page 2 - 6*
2. Remove the floppy disk drive assembly *page 2 - 12*

To remove the Mini PCI I/F module:

1. Remove the LCD back cover *page 2 - 6*
2. Remove the Mini PCI I/F module *page 2 - 13*

To remove the Optical Device:

1. Remove the LCD back cover *page 2 - 6*
2. Remove the optical device *page 2 - 14*

Removing the Hard Disk Drive Assembly

1. Turn **OFF** the computer and turn it around so that you may comfortably access the left side.
2. Remove screw 1 from the HDD Bay 2.
3. Carefully pull the HDD assembly out from the bay and disconnect the IDE cable 3, and power cable 4.
4. Turn the assembly over and remove screws (5 - 8) holding the assembly to the bay cover 9 .
5. Remove screws 10 - 15 and separate the hard disk 16 and case 17 .
6. Insert the new hard disk, and reverse the removal procedure to install the new hard disk.

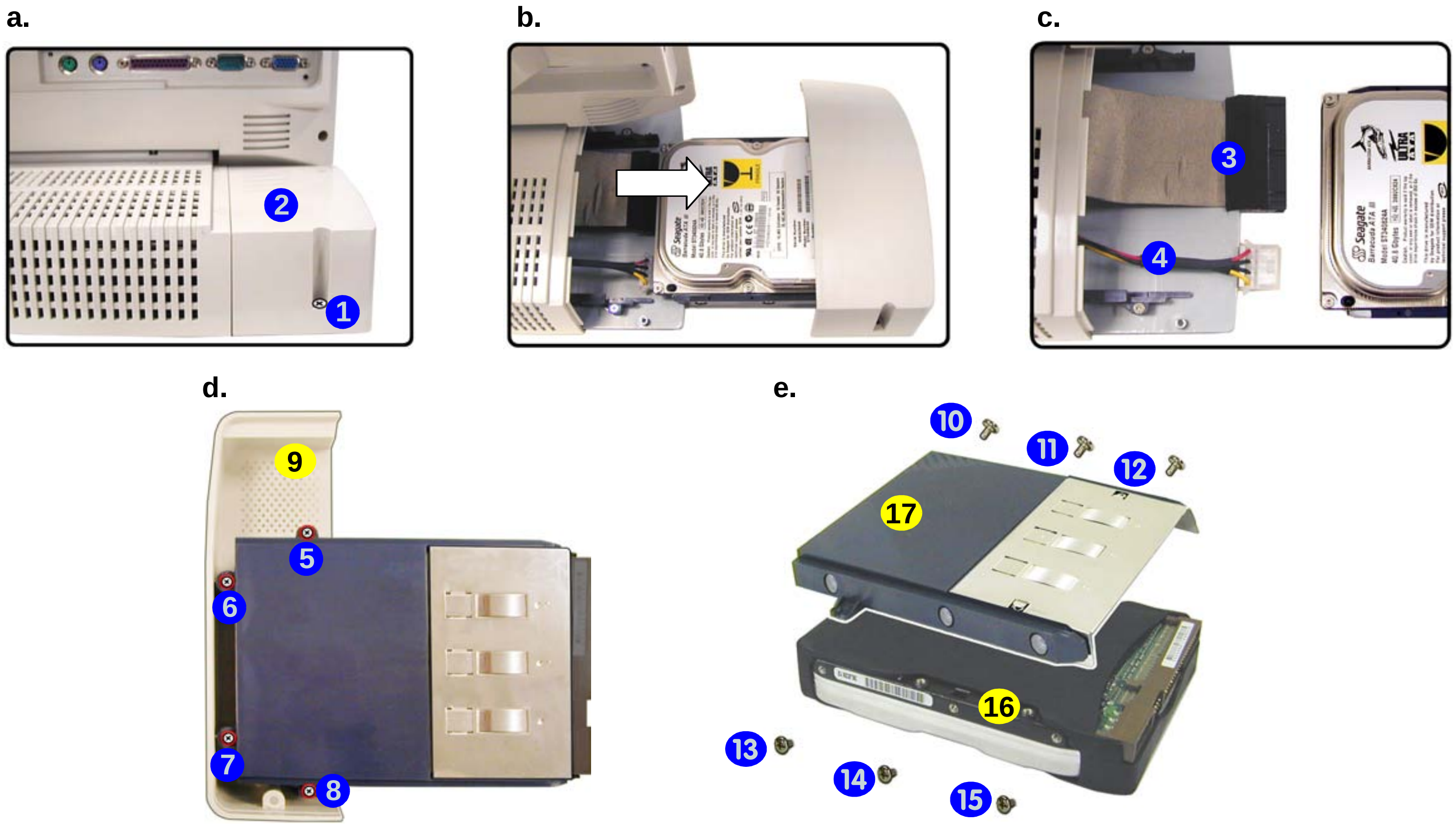


Figure 2 - 1
Hard Disk Removal Sequence

a. Remove the screw from the HDD Bay.
b. Slide the HDD assembly in the direction of the arrow.
c. Disconnect the IDE and power cables.
d. Remove the screws from the assembly.
e. Remove the screws and separate the HDD from the case.

9. HDD Bay Cover
16. HDD
17. HDD case

- 11 Screws

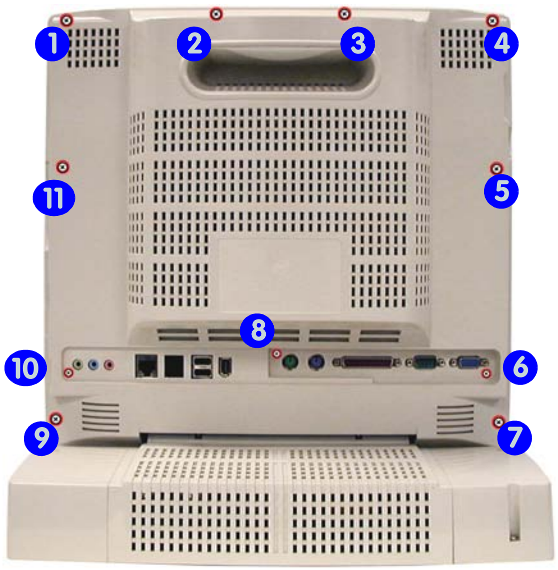
Figure 2 - 2
LCD Back Cover Removal Sequence

a. Remove the screws from the LCD back cover.
b. Lift the cover out and set it aside.

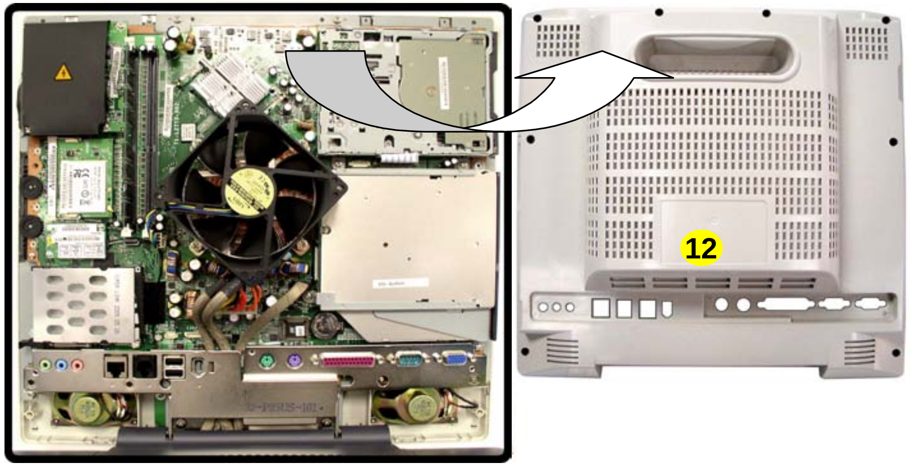
Removing the LCD Back Cover

1. Turn **OFF** the computer and place it with its LCD display facing down on a clean, dry, level surface.
2. Remove screws 1 - 11 from the LCD back cover and slide it up towards the top of the computer.
3. Carefully remove the LCD back cover 12 from the main unit and set it aside.

a.



b.



12. LCD back cover

- 11 Screws

2.Disassembly

Removing the System Memory

1. Remove the LCD back cover (*page 2 - 6*).
2. The memory sockets will be visible at point 1 on the mainboard.
3. For each module you want to replace, gently pull the latches 2 and 3 toward the sides of the socket to release the module.
4. Pull the latches to release the second module if necessary.
5. The module 4 will pop-up, and you can remove it.
6. Insert a new module and fit the connectors firmly into the memory slot.
7. Reverse the procedures to put the computer back together, and do not forget all the screws. When you restart the computer the new memory configuration should be registered.
8. If the system doesn't properly detect the new memory, **and you are sure they are properly "seated"**, you may need to run the *Setup* utility.

Figure 2 - 3
Memory Removal Sequence

a. Locate the memory sockets.
b. Pull the latch(es) on the memory sockets to release the module(s) and lift it (them) out.
c. Insert a new module.

a.



b.



c.



4. Memory module(s)

Contact Warning

Be careful not to touch the metal pins on the module's connecting edge. Even the cleanest hands have oils which can attract particles, and degrade the module's performance.

Figure 2 - 4
CPU Removal Sequence

a. Remove the screws from the CPU heat sink and fan unit.
b. Release the power cable and lift the heat sink & fan unit out.

Caution

The heat sink, and CPU area in general, contains parts which are subject to high temperatures - Please allow the area time to cool before removing these parts.

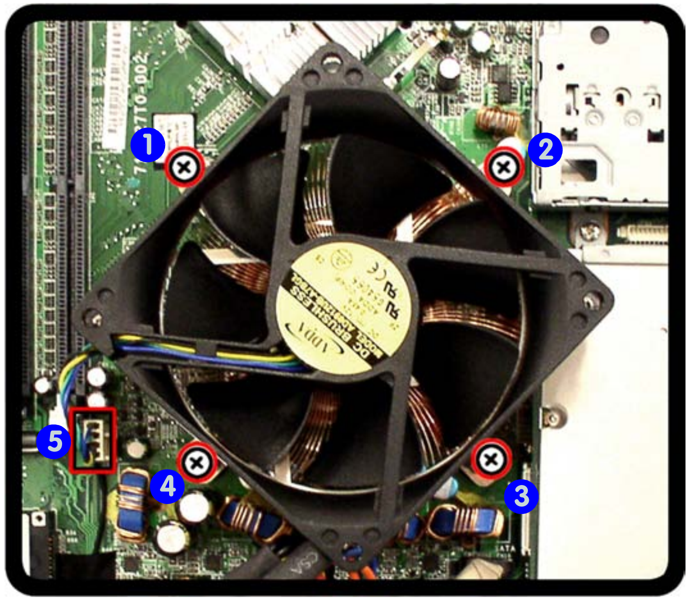
6. Heat Sink & Fan

- 4 Screws

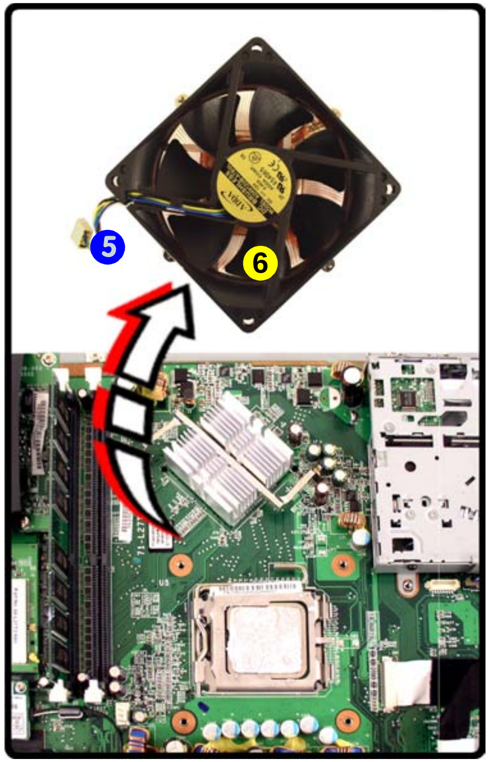
Removing the CPU

1. Remove the LCD back cover (*page 2 - 6*).
2. Remove screw 1 - 4 from the CPU heat sink fan unit.
3. Release the power cable 5 from the board and lift out the CPU heat sink fan unit 6.

a.

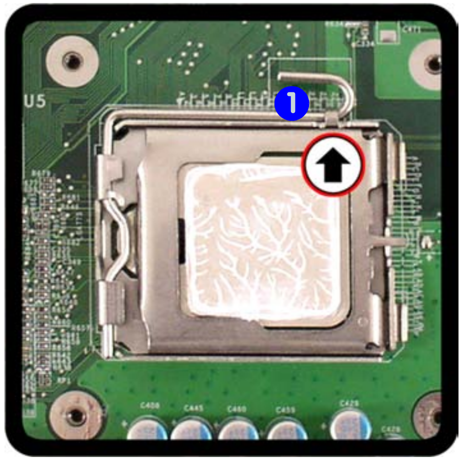


b.

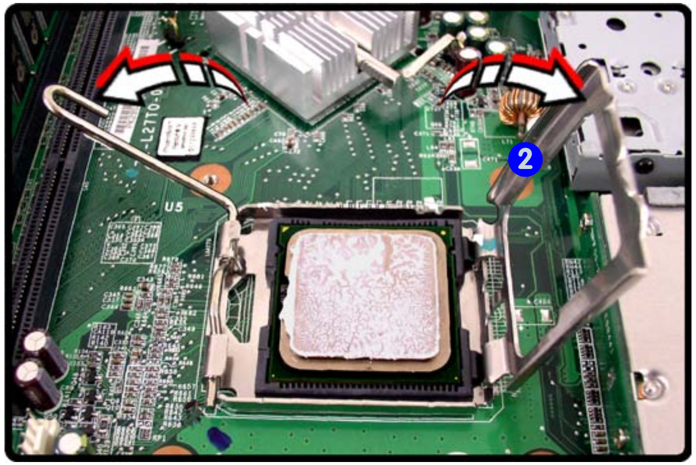


4. Press down and hold the latch 1 (on the top of the CPU unit).
5. You will be able to release the latch while it is held down, and then ease the bracket 2 off the CPU unit
6. Carefully (it may be hot) lift the CPU 3 up out of the socket using the CPU removal tool.
7. When re-inserting the CPU pay careful attention to the pin alignment, it will fit only one way (don't force it!).

a.



b.



c.

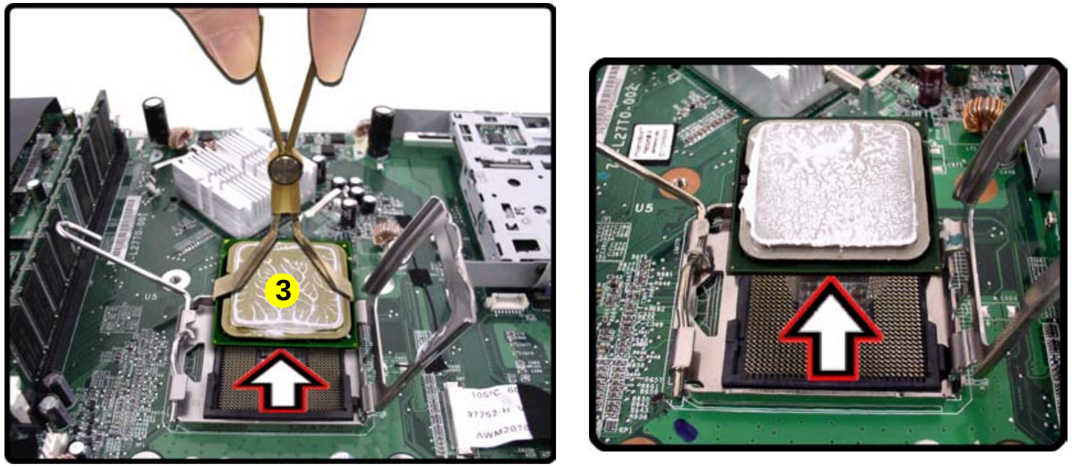


Figure 2 - 5
CPU Removal Sequence (cont'd)

a. Release the latch.
b. Ease the bracket off the CPU unit.
b. Use the tool to lift out the CPU.

3. CPU

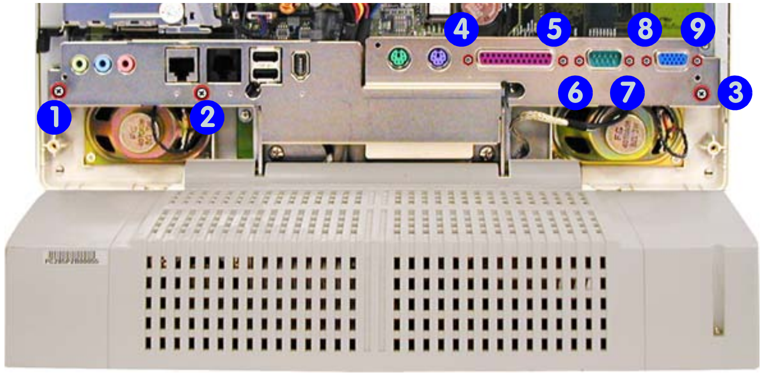
Figure 2 - 6
I/O Bracket Removal Sequence

a. Remove the screws from the I/O bracket.
b. Lift the I/O bracket up off the mainboard.

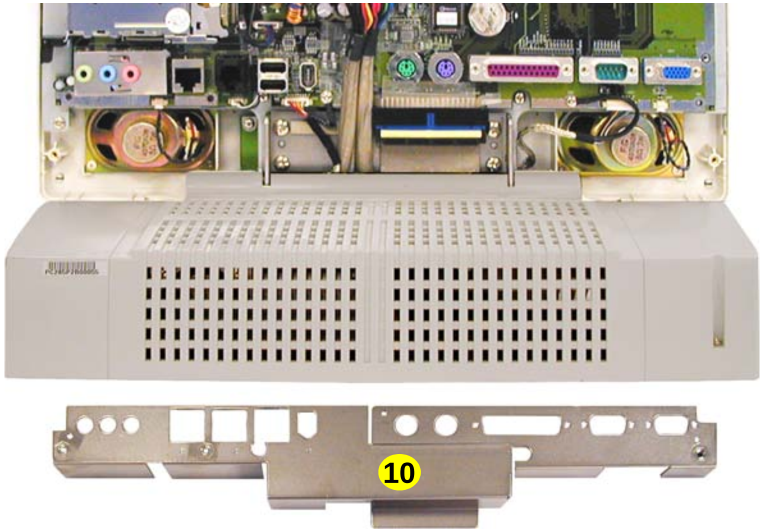
Removing the I/O Bracket

1. Remove the LCD back cover (*page 2 - 6*).
2. Remove the standard screws 1 - 3, and use long-nosed pliers or a nutdriver to remove the hex socket connector type screws 4 - 9.
3. Carefully ease the I/O bracket 10 off the mainboard.

a.



b.



10. I/O bracket

9 Screws

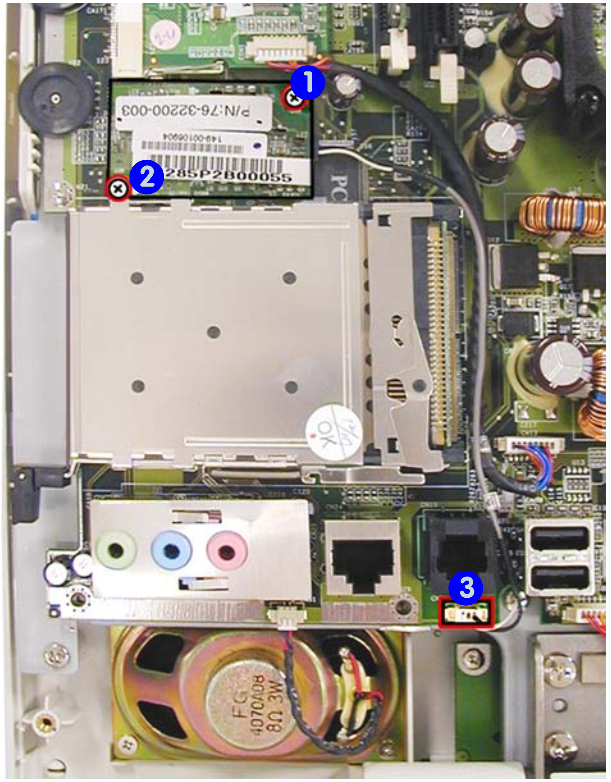
Removing the Modem

1. Remove the LCD back cover (*page 2 - 6*) and I/O bracket (*page 2 - 10*).
2. Remove screws 1 and 2 from the modem module and disconnect the modem cable at point 3.
3. Disconnect the modem module 4 from the connector socket 5, and lift it and the modem and cable 6 off the mainboard.

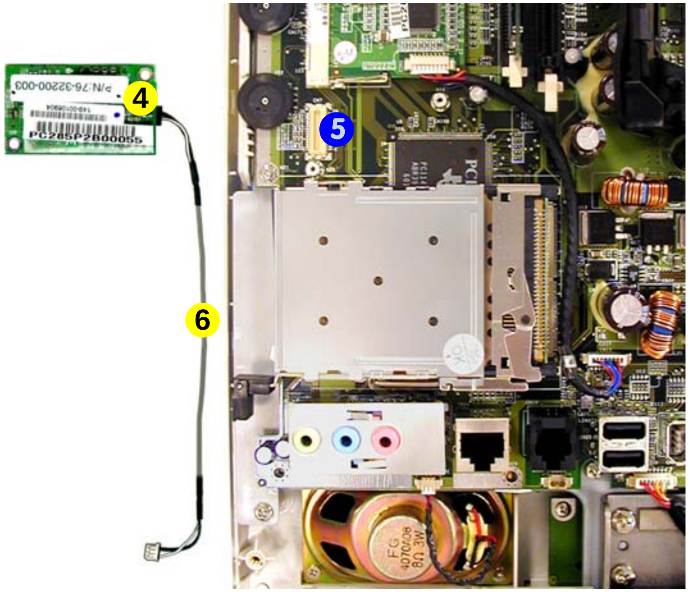
Figure 2 - 7
Modem Removal Sequence

a. Remove the screws from the modem unit, and disconnect the cable.
b. Lift the modem and cable off the board.

a.



b.



4. Modem module
6. Modem cable

- 2 Screws

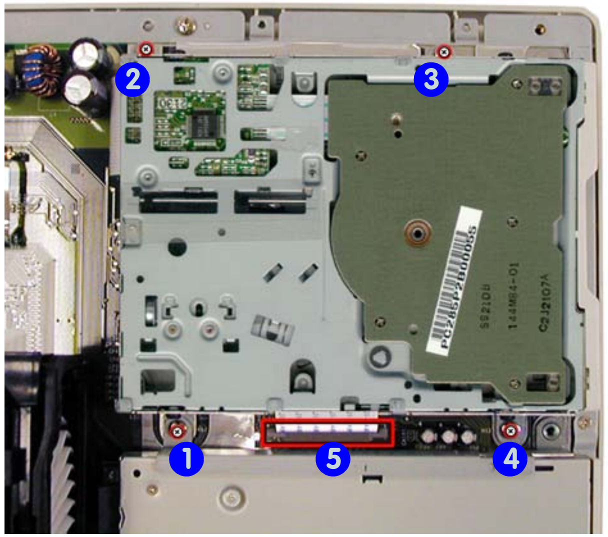
Figure 2 - 8
Floppy Disk Drive Assembly Removal Sequence

a. Remove the screws from the FDD assembly and disconnect the FDD ribbon cable.
b. Lift the FDD assembly off the board.

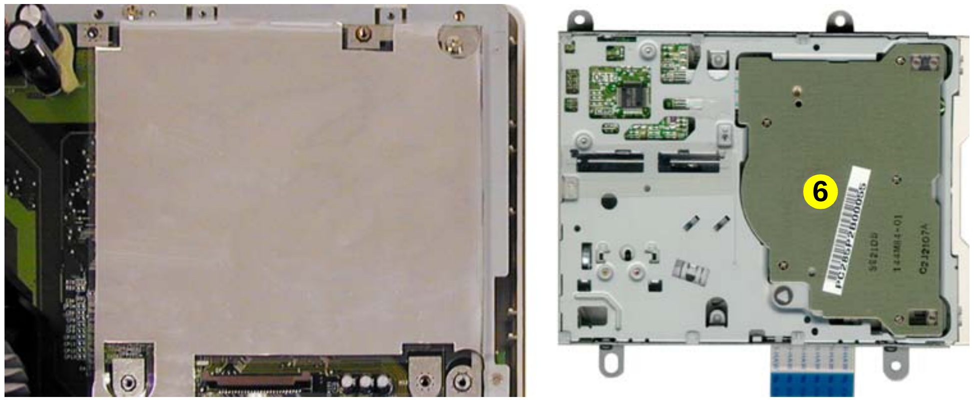
Removing the Floppy Disk Drive Assembly

1. Remove the LCD back cover (***page 2 - 6***).
2. Remove screws **1** - **4** from the floppy disk drive assembly.
3. Carefully disconnect the floppy disk drive ribbon cable at point **5**.
4. Lift the floppy disk drive assembly **6** off the mainboard.

a.



b.

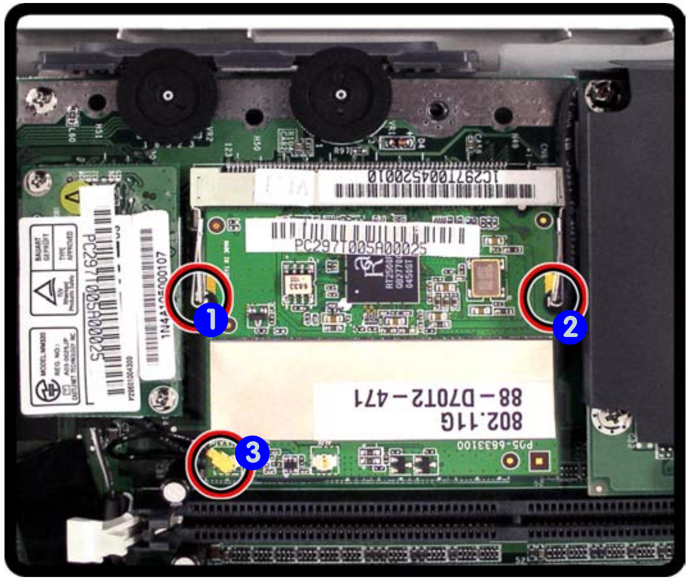


6. FDD Assembly
- 4 Screws

Removing the Mini PCI I/F Module

1. Remove the LCD back cover (*page 2 - 6,*).
2. Release the pins at points 1 & 2 and carefully lift up the Mini PCI I/F module.
3. Disconnect the antenna cable at point 3 on the module, then lift Mini PCI I/F module 4 off the mainboard.

a.



b.

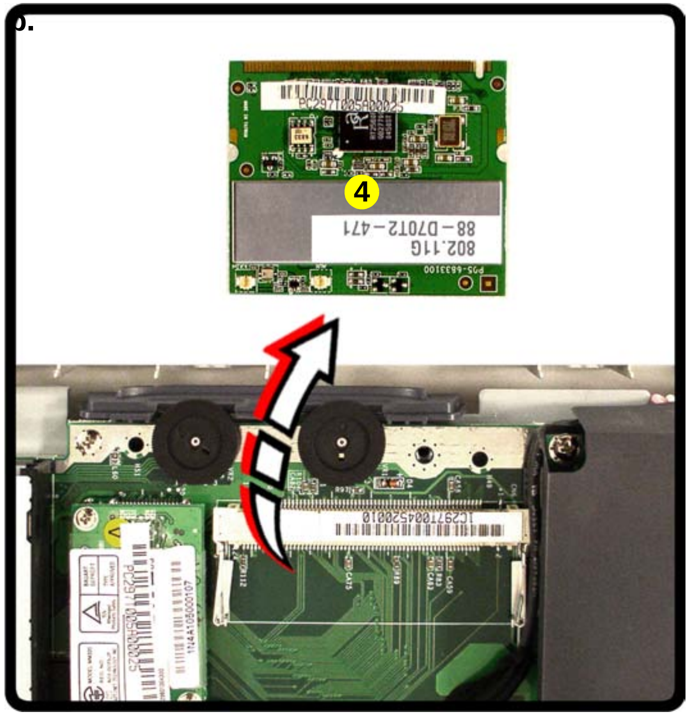


Figure 2 - 9
Mini PCI I/F Module Removal Sequence

a. Release the pins and carefully lift the Mini PCI I/F module up and disconnect the cable.
b. Lift the Mini PCI I/F module up and out from the mainboard.

4. Mini PCI I/F module

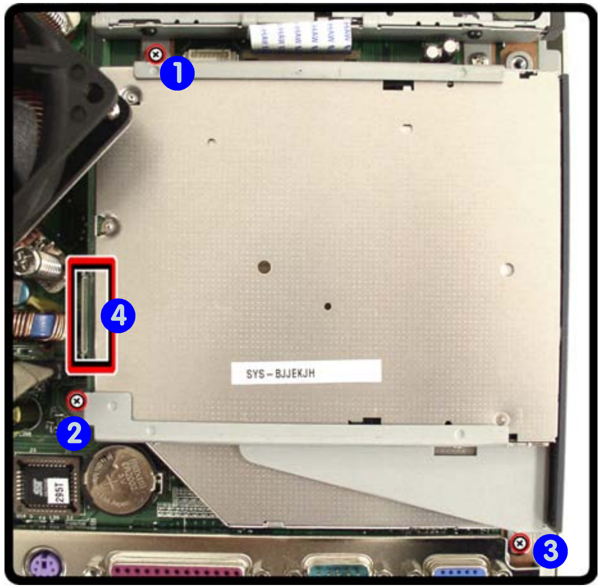
Removing the Optical Device Assembly

Figure 2 - 10
Optical Device Assembly Removal Sequence

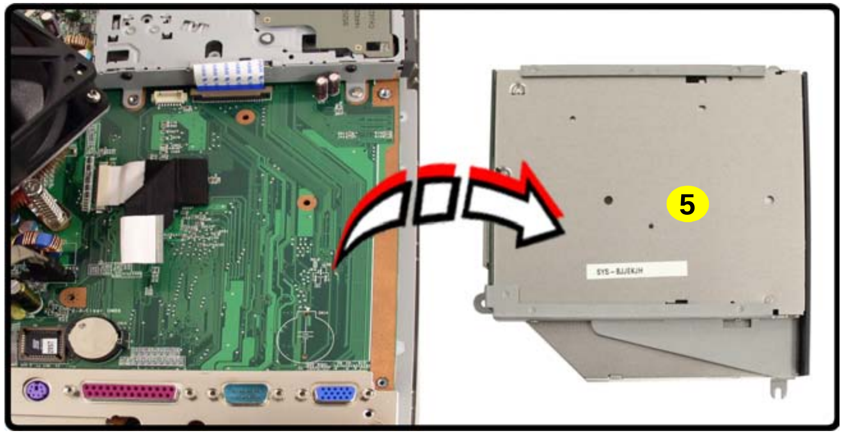
a. Remove the screws and disconnect the cable.
b. Remove the Optical Device.

1. Remove the LCD back cover (*page 2 - 6*).
2. Remove screws 1 - 3, and disconnect cable 4, from the optical device.
3. Remove the optical device 5 .

a.



b.



5. Optical Device

- 3 Screws

Appendix A: Part Lists

This appendix breaks down the computer's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

Note: This section indicates the *manufacturer's* part numbers. Your organization may use a different system, so be sure to cross-check any relevant documentation.

Note: Some assemblies may have parts in common (especially screws). However, the part lists DO NOT indicate the total number of duplicated parts used.

Note: Be sure to check any update notices. The parts shown in these illustrations are appropriate for the system at the time of publication. Over the product life, some parts may be improved or re-configured, resulting in *new* part numbers.

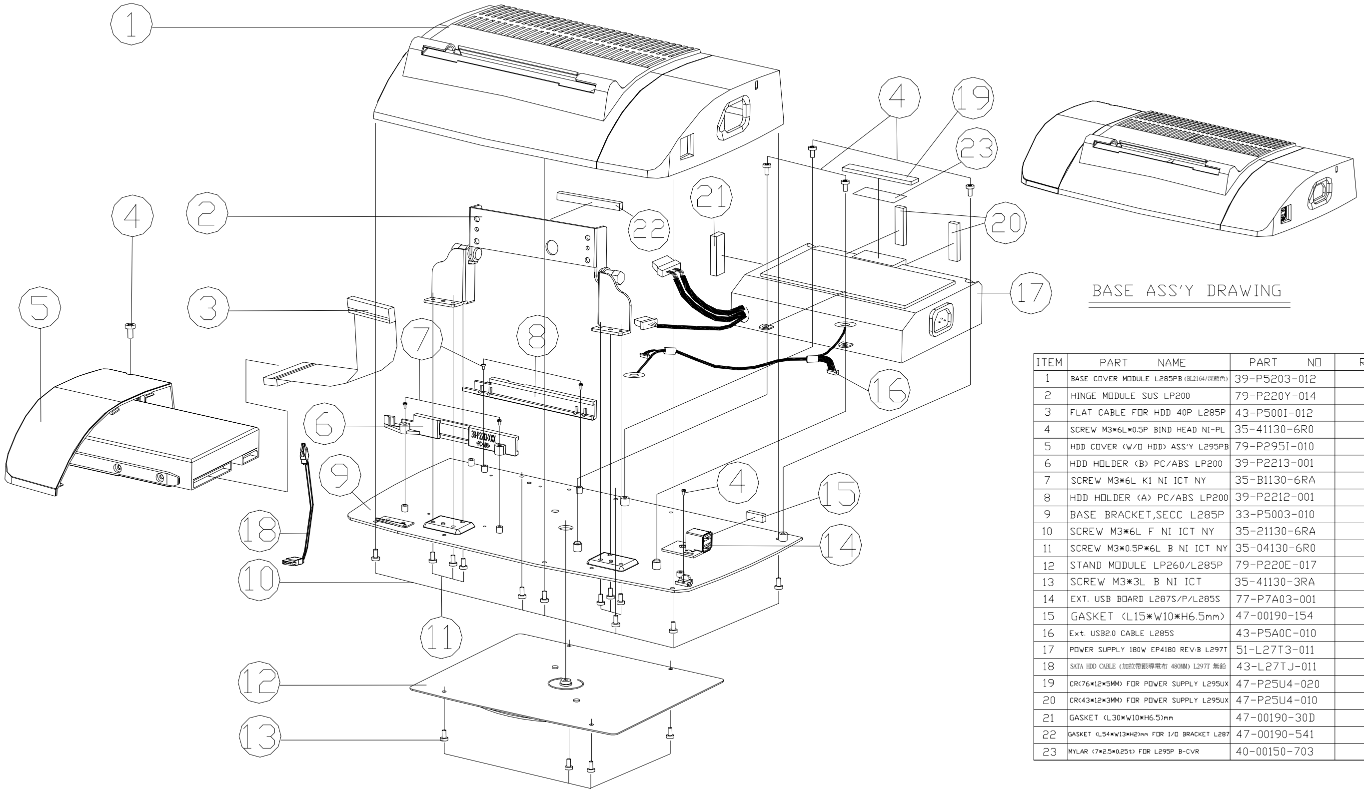
Part List Illustration Location

The following table indicates where to find the appropriate part list illustration.

Part	L295T - Page #
Base	*page A - 3*
Bracket	*page A - 4*
Front	*page A - 5*
DVD-RW	*page A - 6*
FDD	*page A - 7*
HDD	*page A - 8*

Table A - 1
Part List Illustration Location

L295T - Base

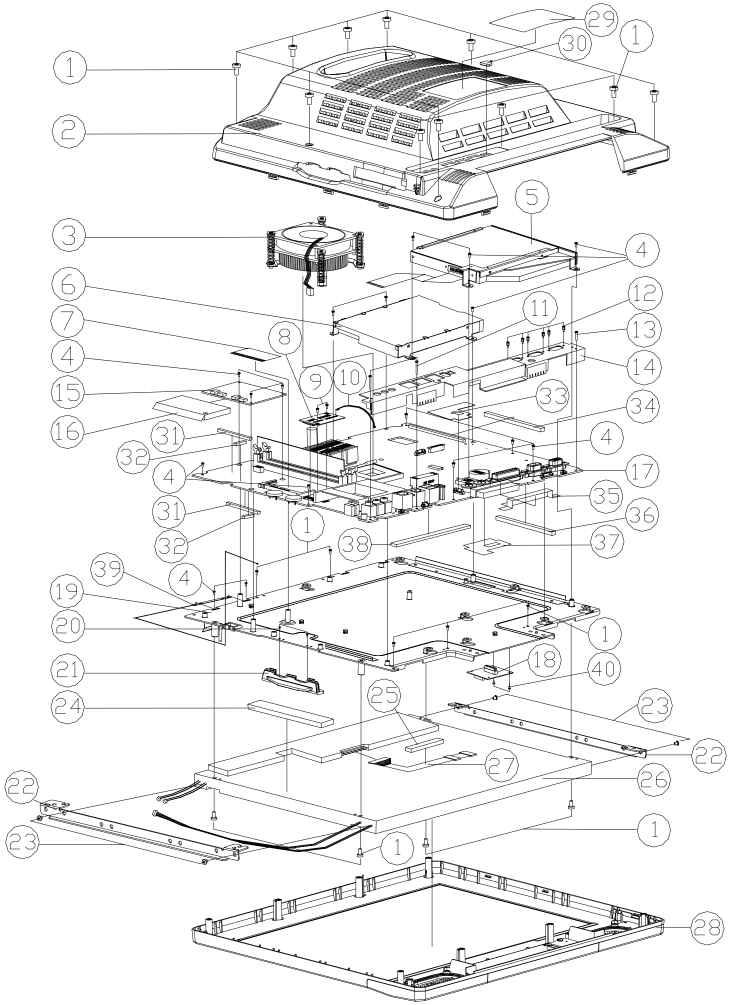


ITEM	PART NAME	PART NO	REMARK
1	BASE COVER MODULE L285PB (BL2164/深藍色)	39-P5203-012	
2	HINGE MODULE SUS LP200	79-P220Y-014	
3	FLAT CABLE FOR HDD 40P L285P	43-P500I-012	
4	SCREW M3*6L*0.5P BIND HEAD NI-PL	35-41130-6R0	
5	HDD COVER (W/O HDD) ASS'Y L295PB	79-P295I-010	
6	HDD HOLDER (B) PC/ABS LP200	39-P2213-001	
7	SCREW M3*6L K1 NI ICT NY	35-B1130-6RA	
8	HDD HOLDER (A) PC/ABS LP200	39-P2212-001	
9	BASE BRACKET,SECC L285P	33-P5003-010	
10	SCREW M3*6L F NI ICT NY	35-21130-6RA	
11	SCREW M3*0.5P*6L B NI ICT NY	35-04130-6R0	
12	STAND MODULE LP260/L285P	79-P220E-017	
13	SCREW M3*3L B NI ICT	35-41130-3RA	
14	EXT. USB BOARD L287S/P/L285S	77-P7A03-001	
15	GASKET (L15*W10*H6.5mm)	47-00190-154	
16	Ext. USB2.0 CABLE L285S	43-P5A0C-010	
17	POWER SUPPLY 180W EP4180 REV:B L297T	51-L27T3-011	
18	SATA HDD CABLE (加拉帶跟導電布 480MM) L297T 無鉛	43-L27TJ-011	
19	CR(76*12*5MM) FOR POWER SUPPLY L295UX	47-P25U4-020	
20	CR(43*12*3MM) FOR POWER SUPPLY L295UX	47-P25U4-010	
21	GASKET (L30*W10*H6.5)mm	47-00190-30D	
22	GASKET (L54*W13*H2)mm FOR I/O BRACKET L287	47-00190-541	
23	MYLAR (7*2.5*0.25t) FOR L295P B-CVR	40-00150-703	

Figure A - 1
L295T - Base

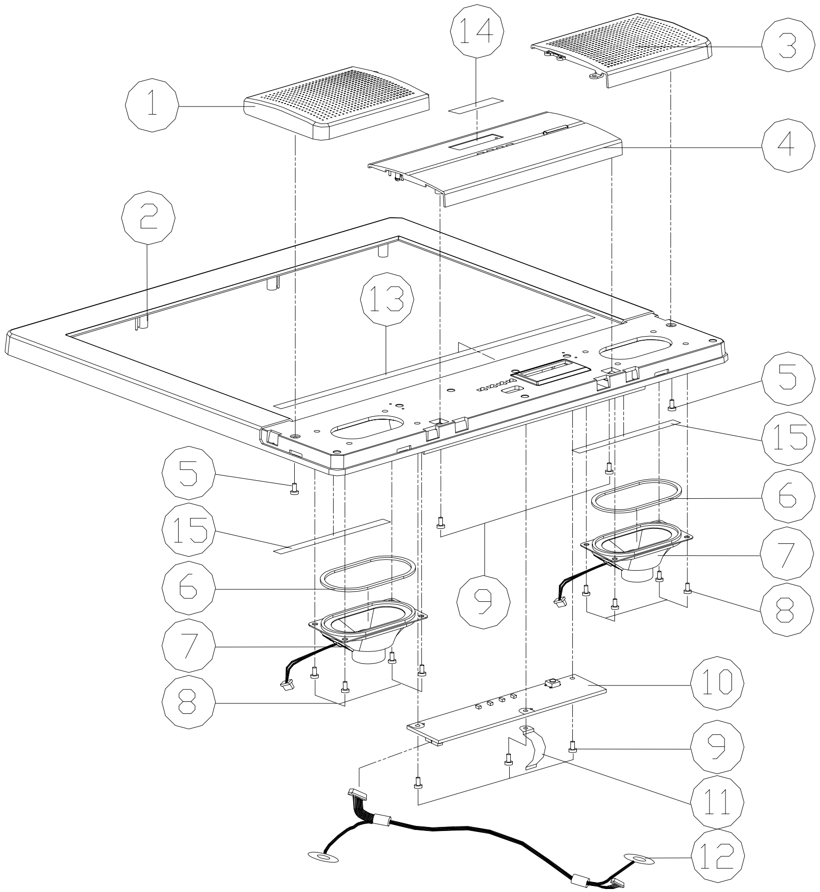
L295T - Bracket

Figure A - 2
L295T Bracket



ITEM	PART NAME	PART NO	REMARK
1	M3*6L*0.5P BIND HEAD NI-PL	35-41130-6R0	
2	LCD BACK COVER MODULE L295PB	39-P2951-020	
3	FAN+HEAT SINK MODULE ADDA	31-L27TN-012	
4	SCREW M2.5*5L B NI ICT	35-41125-5R0	
5	DVD/DUAL RW ASS'Y	79-L25TQ-010	8X TOSHIBA(TS-L532A)
5	DVD ASS'Y	79-P295V-010	
5	COMBO ASS'Y L295PB	79-P295X-020	
6	FDD ASS'Y L295PB	79-P295J-010	
7	WIRELESS LAN ASS'Y L297PB	79-P5020-010	
8	MDC MODEM ASS'Y L297PB	79-P297U-020	
9	SCREW M2*0.4P*3L B NI ICT	35-41120-3R0	
10	WIRE CABLE FOR MDC MODEM L287P	43-P700U-010	
11	SCREW M2.5*23L K1 NI ICT	35-B1125-230	
12	HEX STUD SUM22 NI-PL 10mm	34-96002-000	
13	SCREW M2.5*14L K1 NI ICT	35-B1125-14A	
14	I/O BRACKET+GASKET MODULE,SECC L295UX	33-P25US-101	
15	INVERTER BOARD FOR AU V2.0 L285P	77-P500R-032	
16	INVERTER MYLAR,PC L297P	40-P297S-010	
17	MAIN BOARD V2.0 L295T	77-L25T0-002	
18	BARE PCB LCD CONVERTER BOARD FOR SHARP V2.0 L285SE	71-P5E06-002	
19	LCD BRACKET FOR SHARP 15.0"SIDE,SECC L285S	33-P5A01-030	
20	SCREW M2*5L KI NI ICT	35-B1120-5RA	
21	VR COVER L285PA	42-P517B-011	
22	LCD BRACKET (R&L) FOR AU(M150XN07) L295P	33-P2951-040	
23	SCREW M2*4L F NI ICT	35-21120-4R0	
24	SPONGE (L100*W15*H3)mm FOR LCD L285SF	47-0019A-103	
25	GASKET (L60*W10*H9) FOR AU PANNEL L295T	47-00190-60M	
26	LCD(AU M150XN07)+TOUCH PANEL MODULE L295T	50-L22C0-G02-1	
27	WIRE CABLE FOR AU15" LVDS L295P	43-P2951-020	
28	LCD+TOUCH PANEL F-CVR FOR AU ASS'Y L295T	79-L25T1-010	
29	PRODUCT LABEL L295T	45-L25TB-010-C	
30	1394 RUBBER COVER,SILICONE (COLOR=BLUE) LP	47-P2T3B-010	
31	GASKET (L80*W6*H6mm) L297P	47-00190-800	
32	GASKET (L25*W6*H6mm) L297P	47-00190-25C	
33	MYLAR FOR M/B L297T	40-L27TS-010	
34	GASKET (L80*W6*H6mm) L297P	47-00190-800	
35	HDD CON. MYLAR,MYLAR L285P	40-P505I-010	
36	GASKET(L65*W6*H6mm) L297P	47-00190-654	
37	HINGER MYLAR FOR M/B L287P	40-P705S-021	
38	THERMAL PAD L89.5*W11.5*H4MM FOR M/B L295T	47-L25TS-010	
39	ANTENNA WLAN PIFA 2.4GHZ L=240MM BLACK L297T	23-7L27T-020	
40	SCREW M2*4L F NI ICT	35-21120-4R0	

L295T - Front



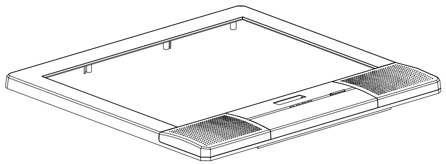
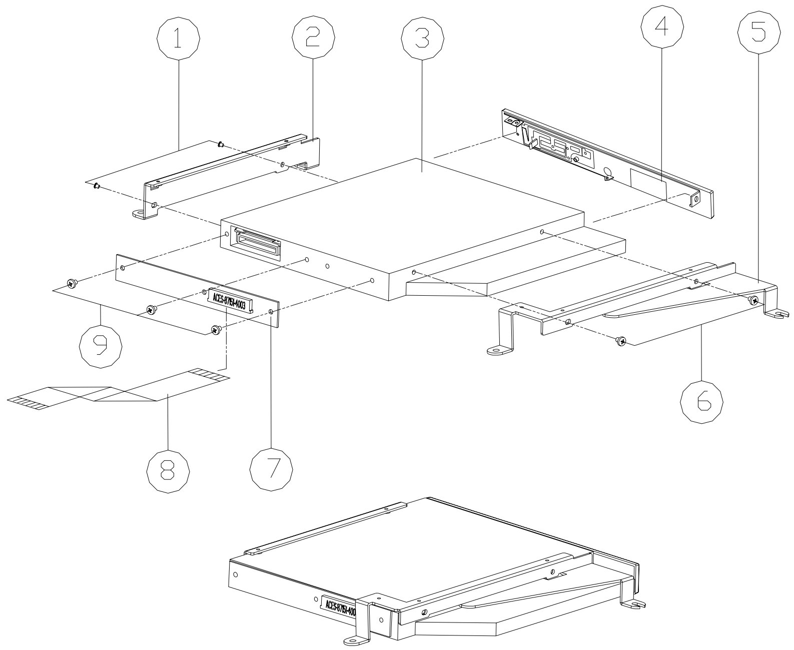


Figure A - 3
L295T - Front

ITEM	PART NAME	PART NO	REMARK
1	SPEAKER COVER (L) MODULE L285PB	42-P527T-100	
2	LCD F-CVR MODULE FOR AU L285SF	39-P5SF1-010	
3	SPEAKER COVER (R) MODULE L285PB	42-P527T-200	
4	CONTROL PANEL MODULE L285PB	42-P5291-101	
5	SCREW M2.5*4L B BNI ICT	35-49125-4R0	
6	SPEAKER RUBBER, SILICONE LP200	47-P2202-000	
7	SPK+CON. 71W*41D*28.7H 3W	23-5A230-13A	
8	SCREW M3*4L KI NI ICT	35-B1130-4RB	
9	SCREW M2.5*5L B NI ICT	35-41125-5R0	
10	LED BOARD	77-P5004-001	
11	SPRING PLATE FOR LED BOARD(7404-02R)H=21	38-P500S-010	
12	WIRE CABLE FOR LED SIGNAL 10P L285P	43-P500F-011	
13	SPONGE (300*8*0.5t) FOR F-CVR L285P	47-0019A-300	
14	NAME PLATE (LCD PC LOGO) LP200SE	45-P2SE1-011	
15	SPEAKER RUBBER,SILICONE LP200	47-P2202-000	

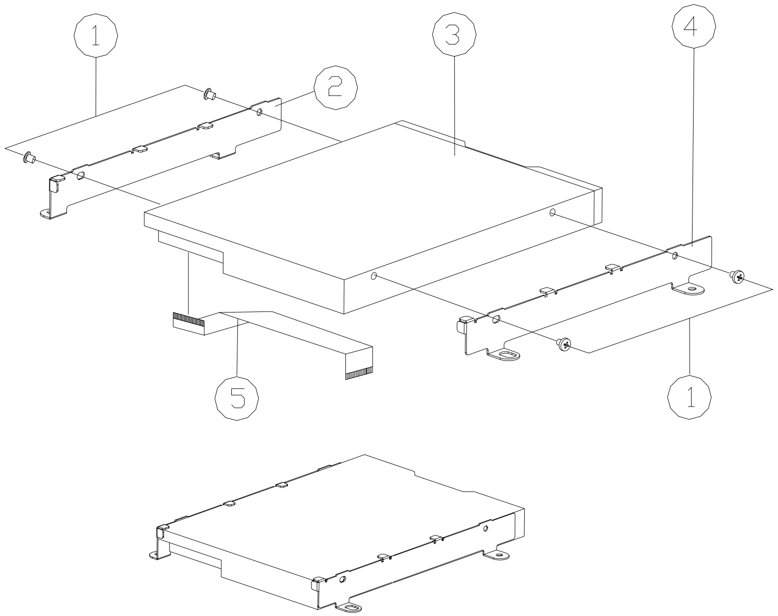
L295T - Toshiba DVD-RW

Figure A - 4
L295T - Toshiba DVD-RW



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2.0*3L F NI ICT NY	35-21120-3RA	
2	CD-ROM BRACKET (L) SECC L285P	33-P500Z-030	
3	DVD-RW 5 1/4" 2X 12.7mm TOSHIBA	85-A072X-T00	
4	TOSHIBA DUAL DVDRW BEZEL MODULE	42-P297Q-A00	
5	CD-ROM BRACKET (R) L295T	33-L25TZ-010	
6	SCREW M2.0*3L F NI ICT NY	35-21120-35B	
7	CD-ROM TRANSFER BOARD FOR DST L295P	77-P295N-001	
8	FFC CABLE FOR CD-ROM L295P	43-P295Z-010	
9	SCREW M2*0.4P*4L B NI ICT	35-41120-4R0	

L295T - FDD

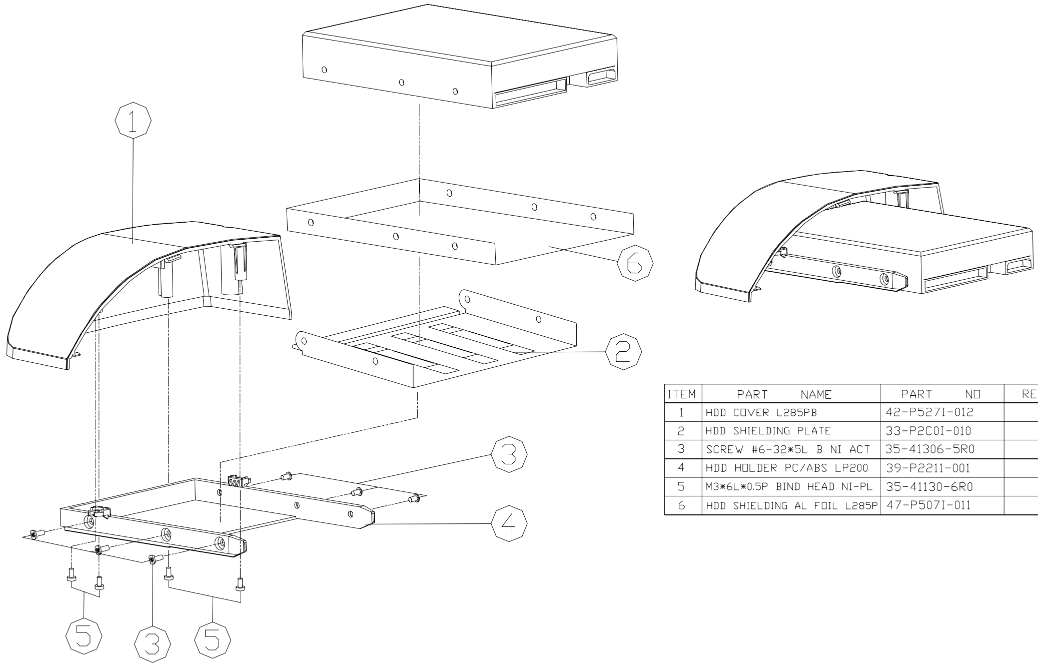


ITEM	PART NAME	PART NO	REMARK
1	SCREW M2.5*3L P BZ ICT NY	35-06125-3R0	
2	FDD BRACKET (R) SECC L285P	33-P500J-012	
3	FDD 3.5" 1.44MB 12.7mm YD-702J-6637J-644761	85-11700-Y06-1	
4	FDD BRACKET (L) SECC L285P	33-P500J-022	
5	FFC CABLE FOR FDD L285P	43-P500J-013	

Figure A - 5
L295T - FDD

L295T - HDD

Figure A - 6
L295T - HDD



ITEM	PART NAME	PART NO	REMARK
1	HDD COVER L285PB	42-P527I-012	
2	HDD SHIELDING PLATE	33-P2C0I-010	
3	SCREW #6-32*5L B NI ACT	35-41306-5R0	
4	HDD HOLDER PC/ABS LP200	39-P2211-001	
5	M3*6L*0.5P BIND HEAD NI-PL	35-41130-6R0	
6	HDD SHIELDING AL FOIL L285P	47-P507I-011	

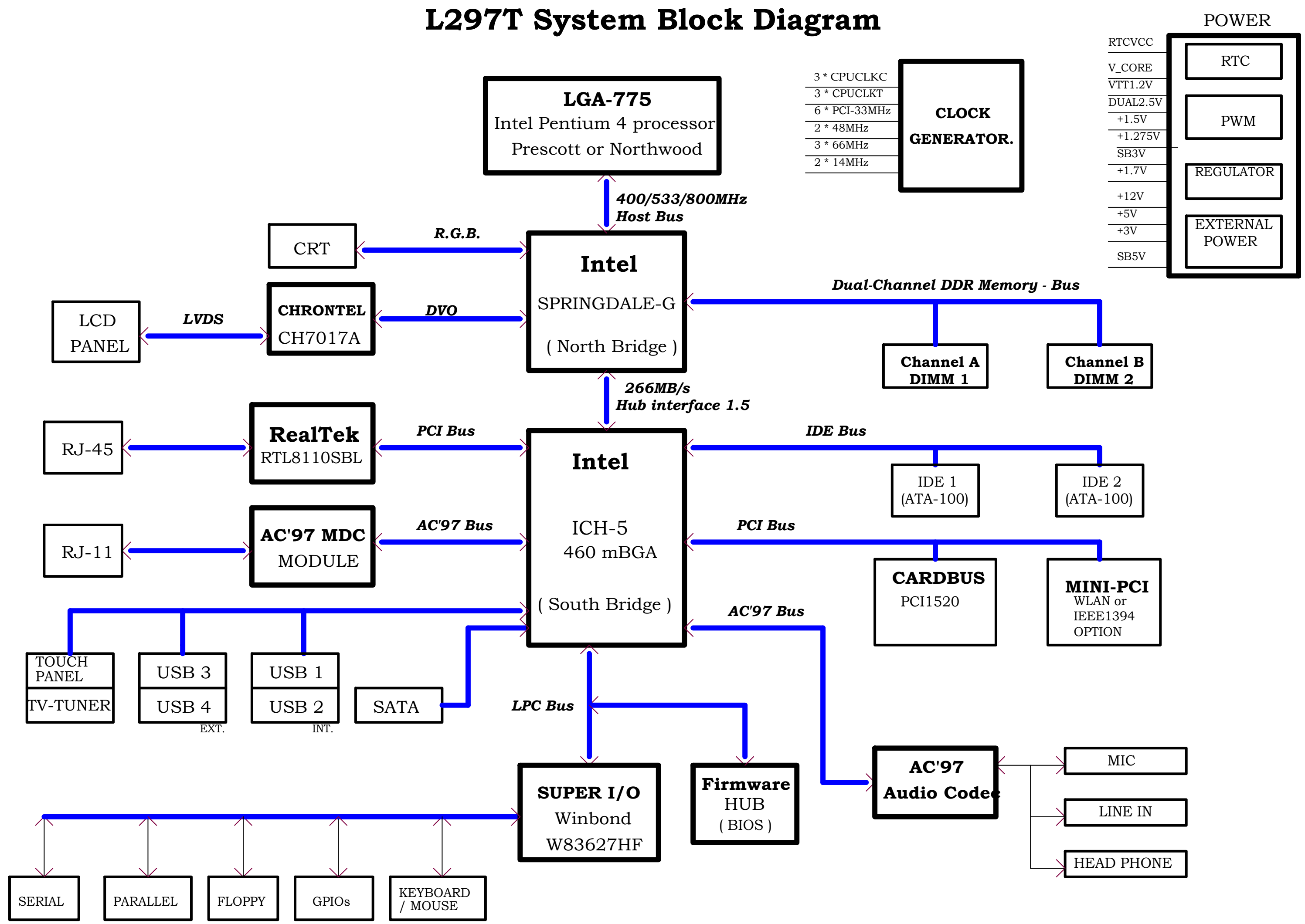
Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the systems PCB's:

Table B - 1
Schematic Diagram

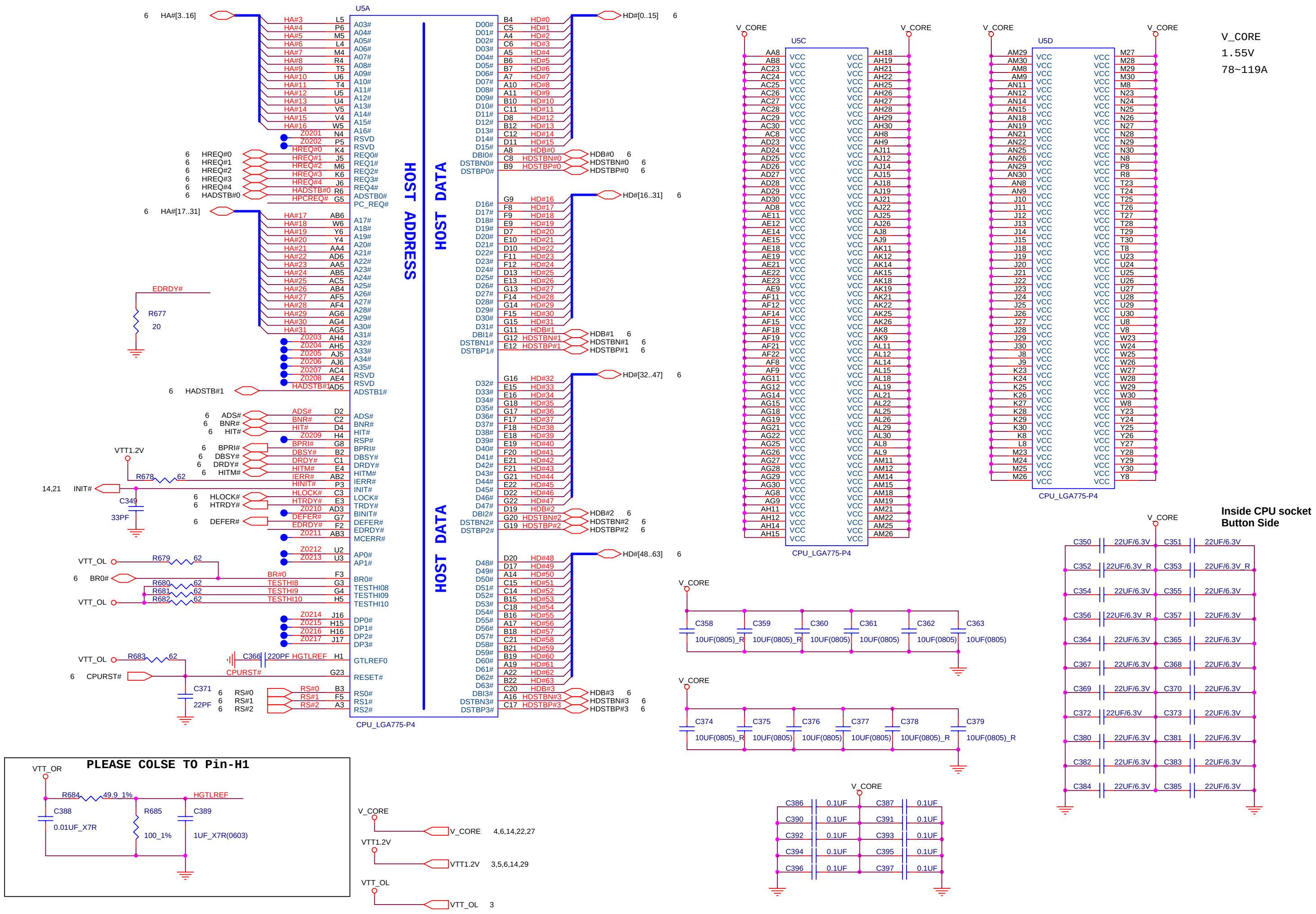
System Block Diagram

Sheet 1 of 29
Schematic Diagram



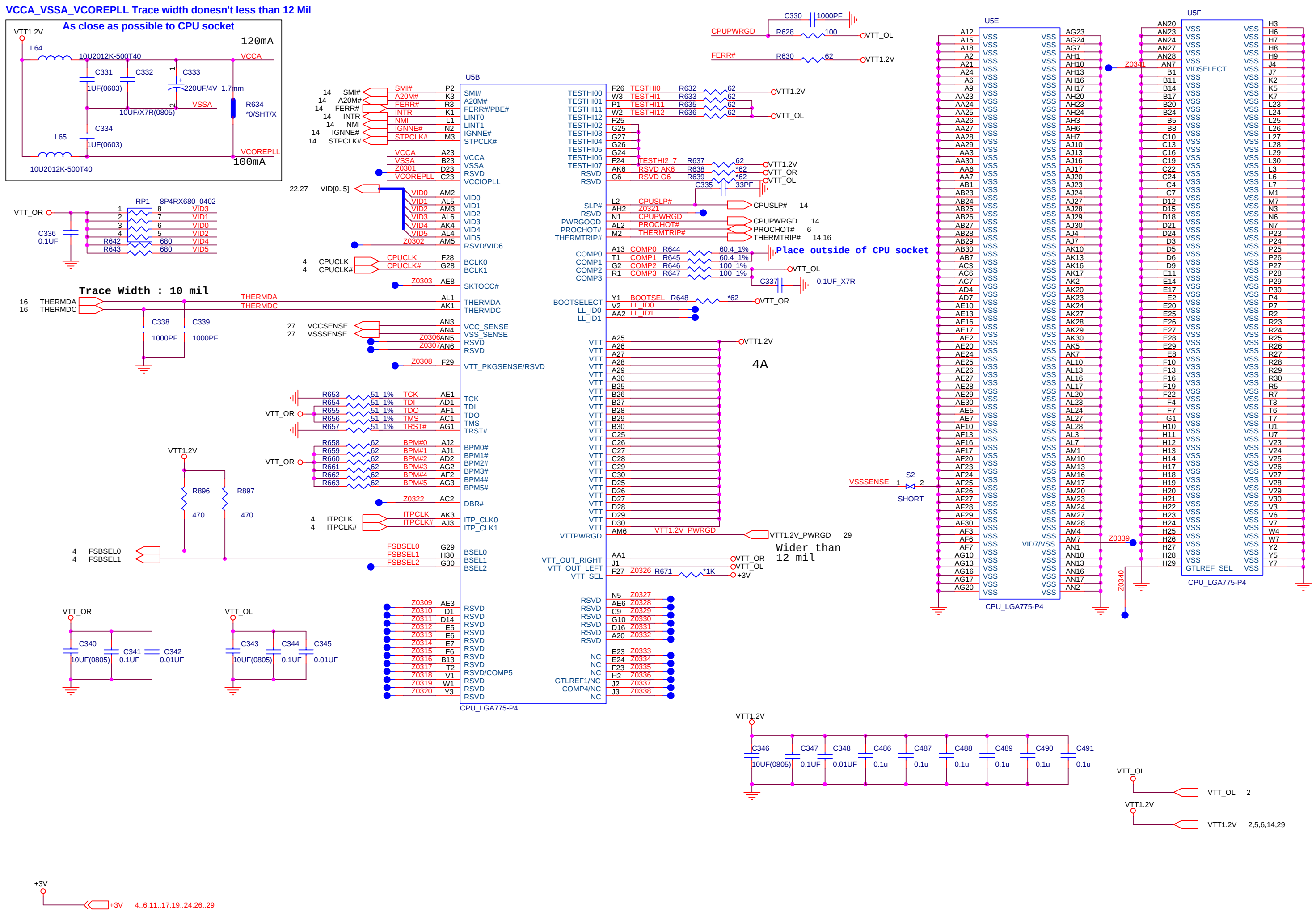
CPU Prescott - 1 of 2

Sheet 2 of 29
CPU Prescott 1 of 2



CPU Prescott - 2 of 2

Sheet 3 of 29
CPU Prescott 2 of 2



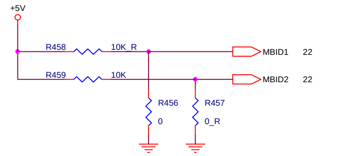
Clock Generator

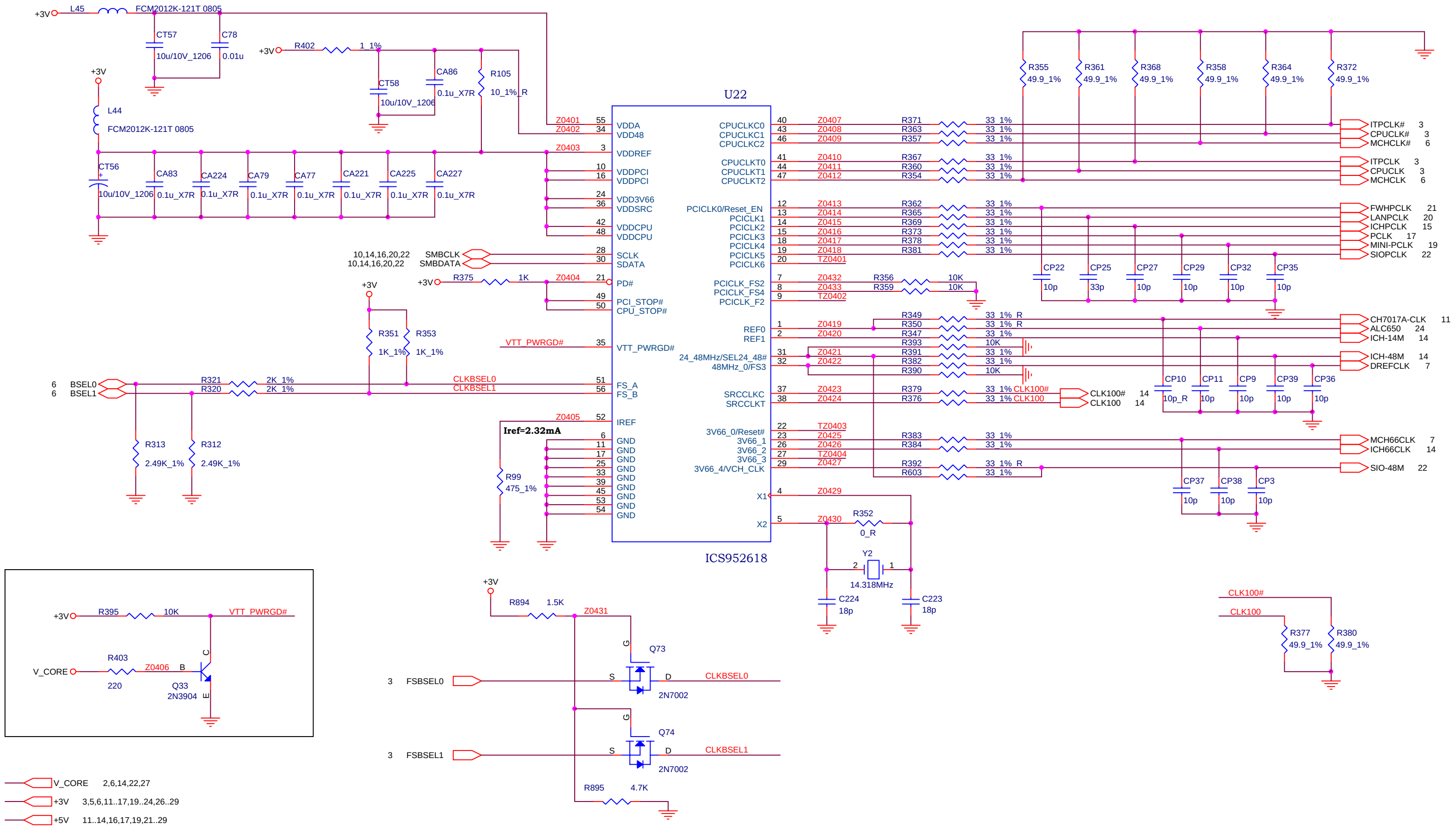
FREQUENCY SETUP TABLE

(FS4)	(FS3)	(FS2)	(FSA)	(FSB)	CPU (MHz)	SRC (MHz)	AGP (MHz)	PCI (MHz)
0	0	0	0	0	100.00	100/200	66.67	33.33
0	0	0	0	1	200.00	100/200	66.67	33.33
0	0	0	1	0	133.33	100/200	66.67	33.33

1 = HI , 0 = LOW

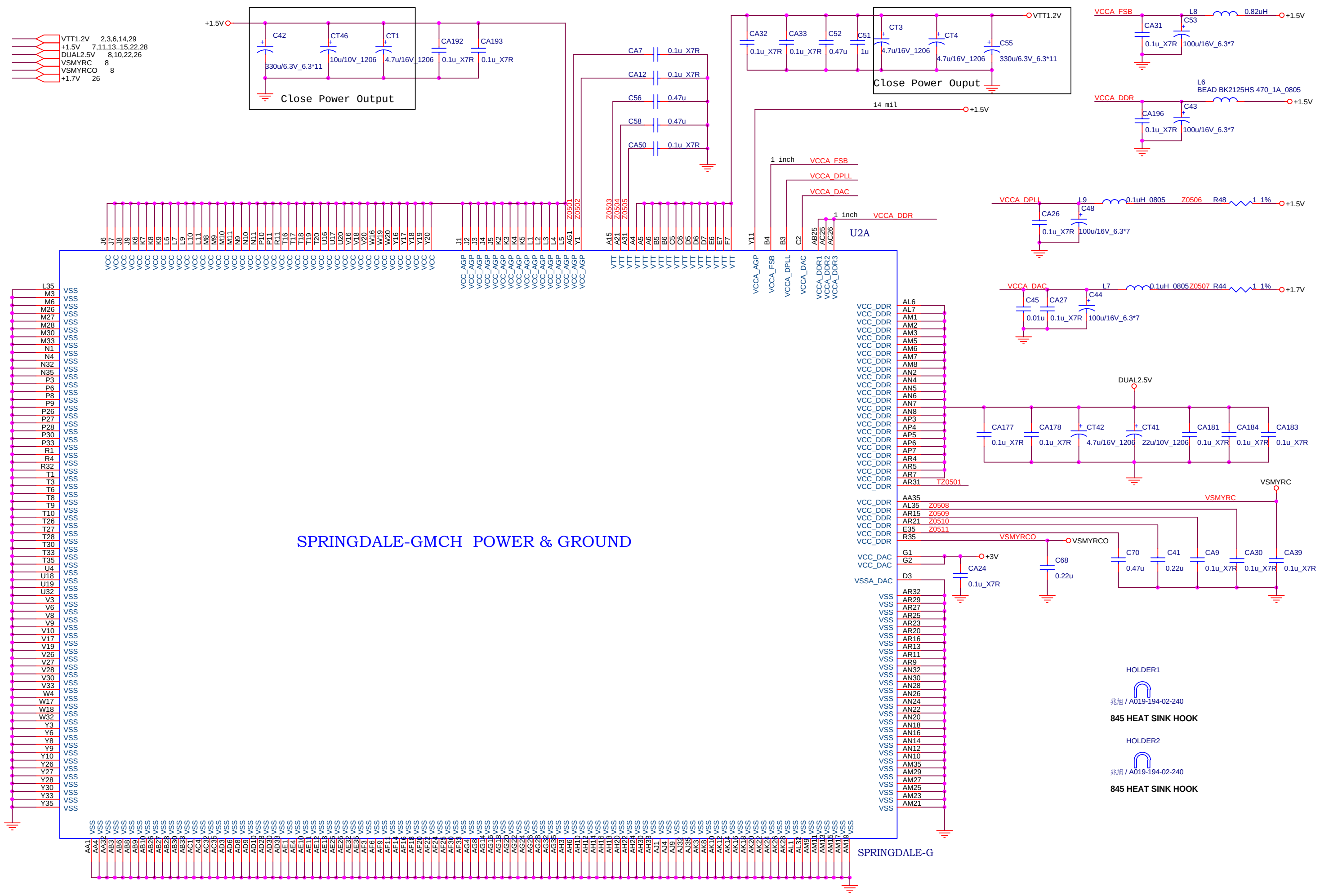
	MBID1	MBID2		
ID1	1	1	V1.0 V2.0	FOR L297P
ID2	1	0	V3.0	FOR L297P
ID3	0	1	V4.0	FOR L297T
ID4	0	0		





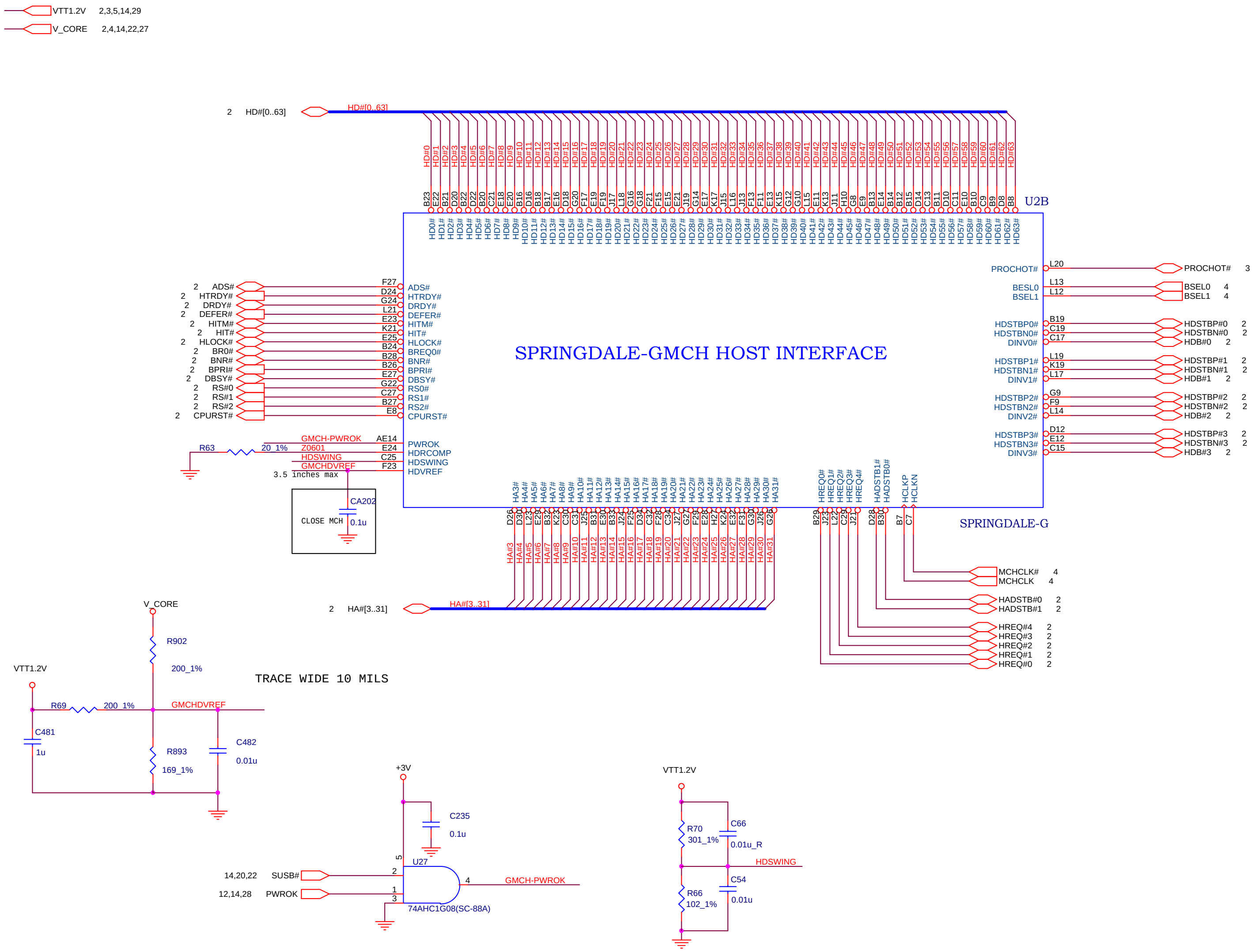
MCH Power

Sheet 5 of 29
MCH Power



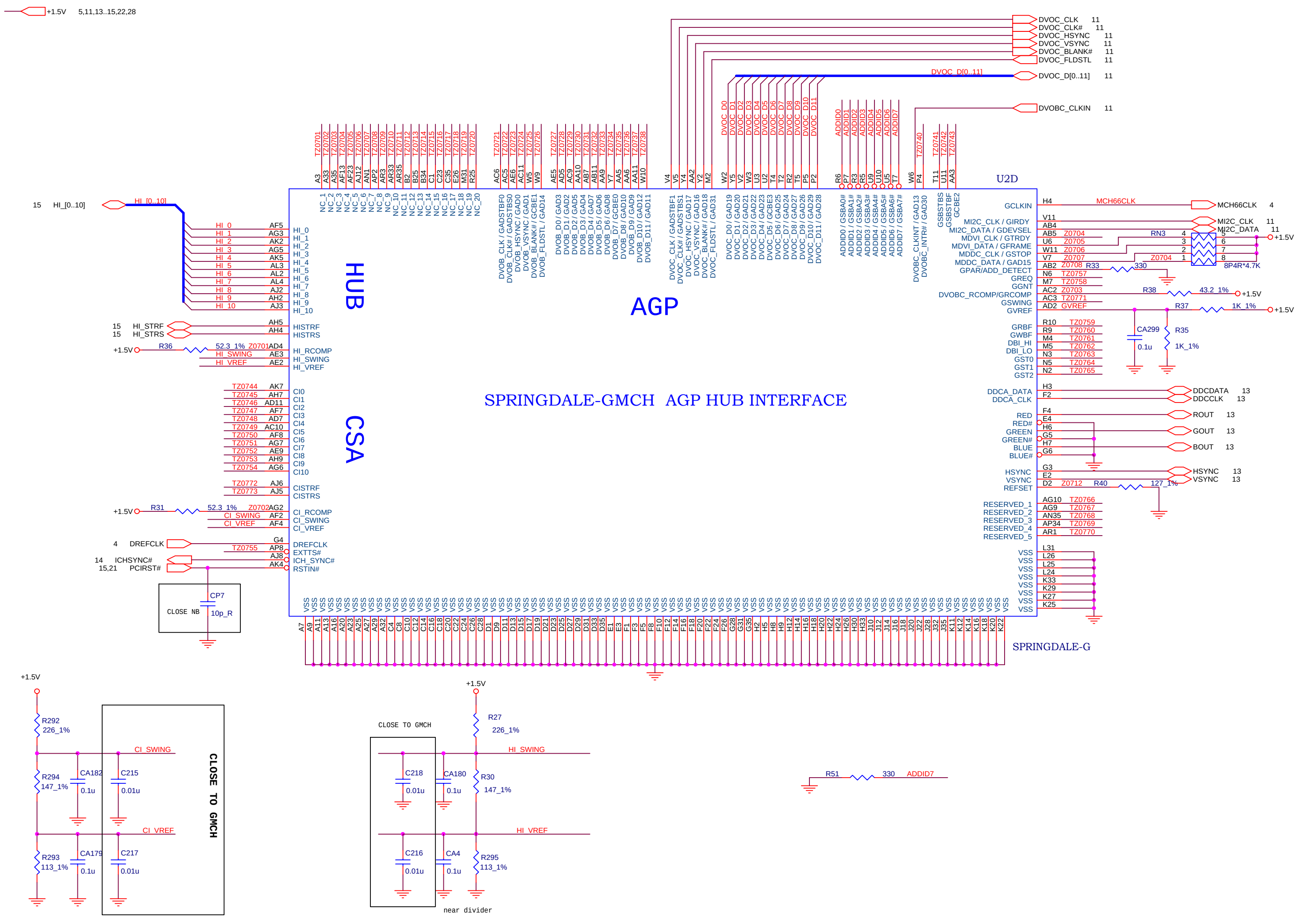
MCH Host

Sheet 6 of 29
MCH Host



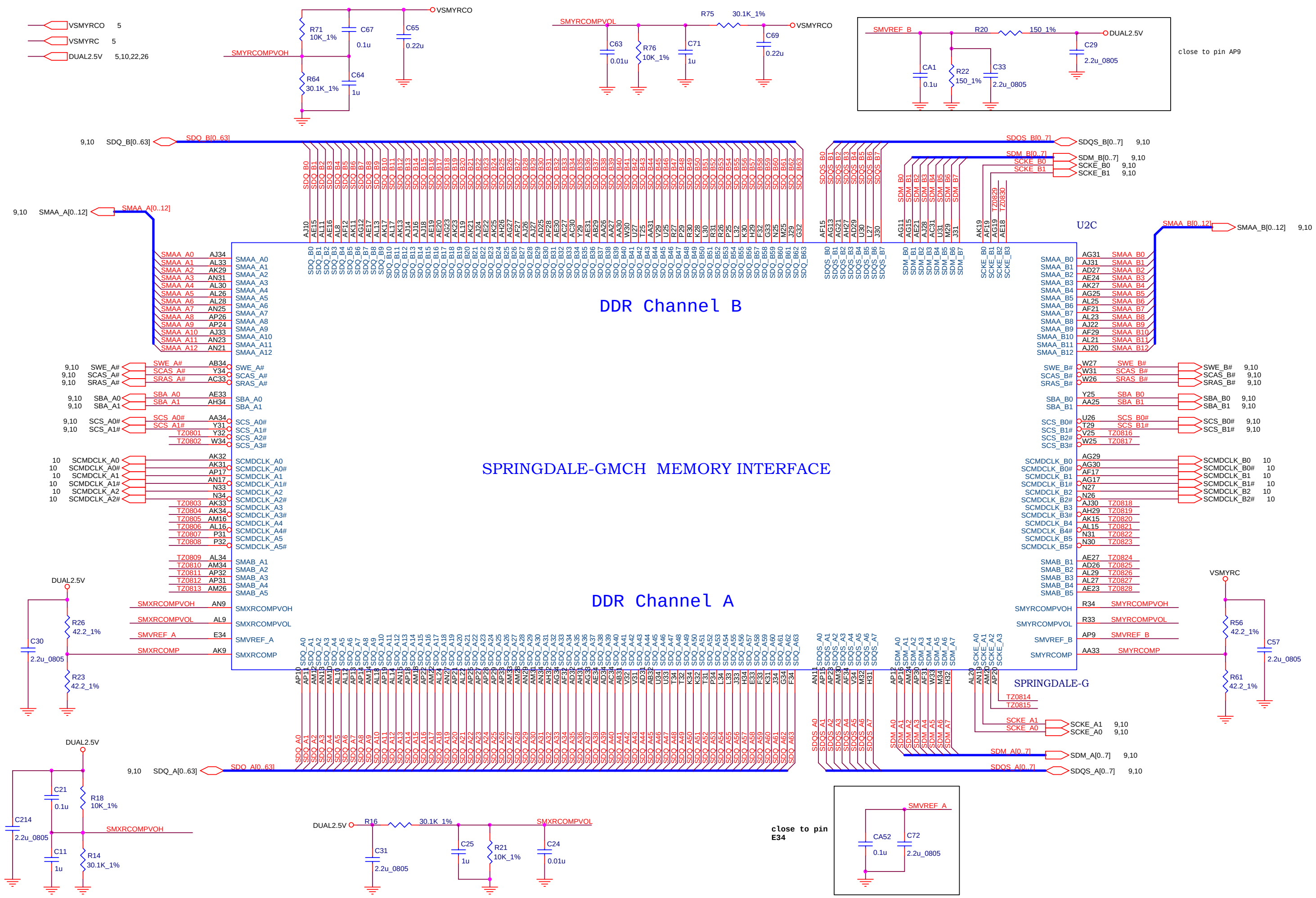
MCH AGP

Sheet 7 of 29
MCH AGP



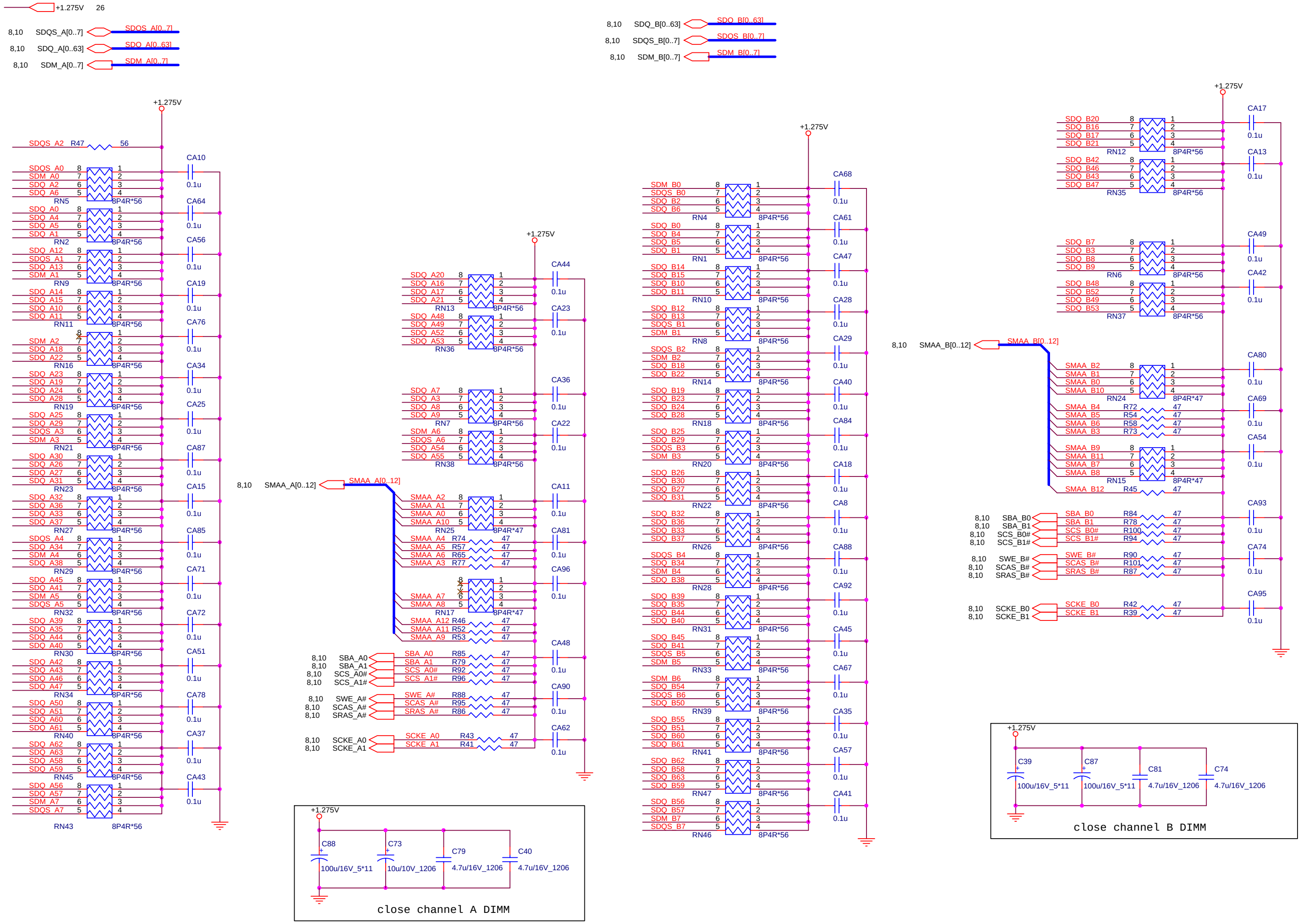
MCH Memory

Sheet 8 of 29
MCH Memory



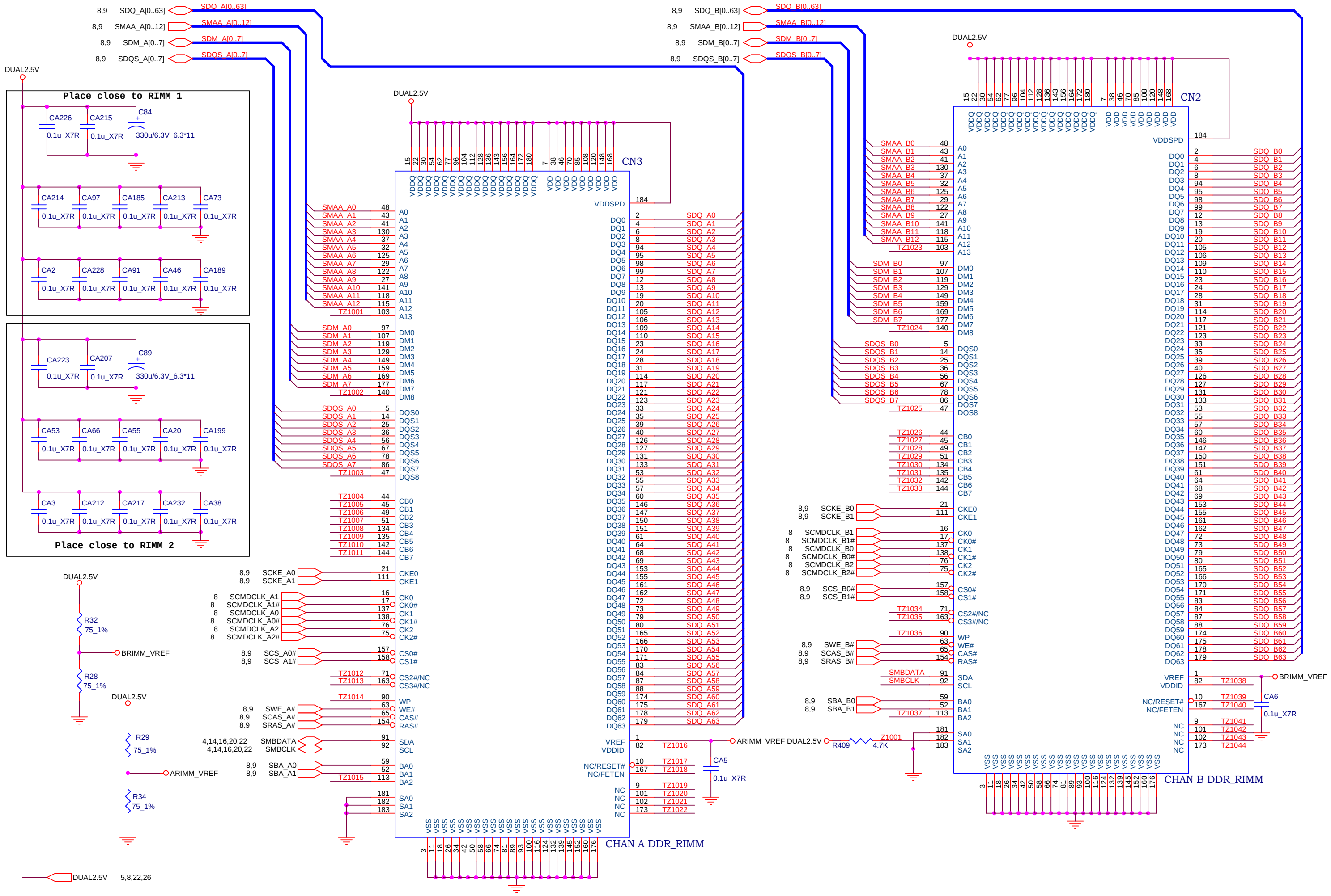
MCH Memory Termination

Sheet 9 of 29
MCH Memory
Termination



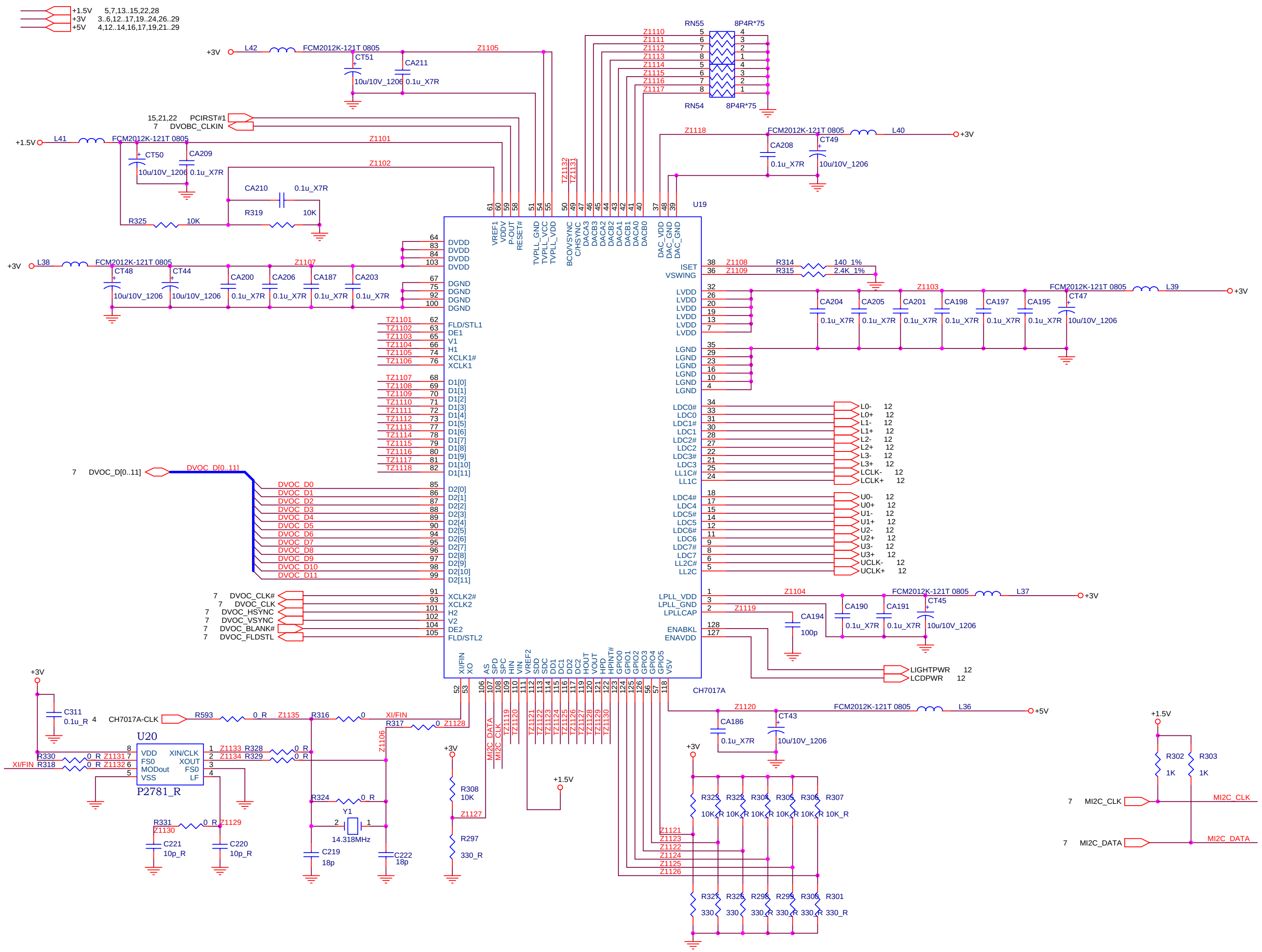
DDR RIMM

Sheet 10 of 29
DDR RIMM



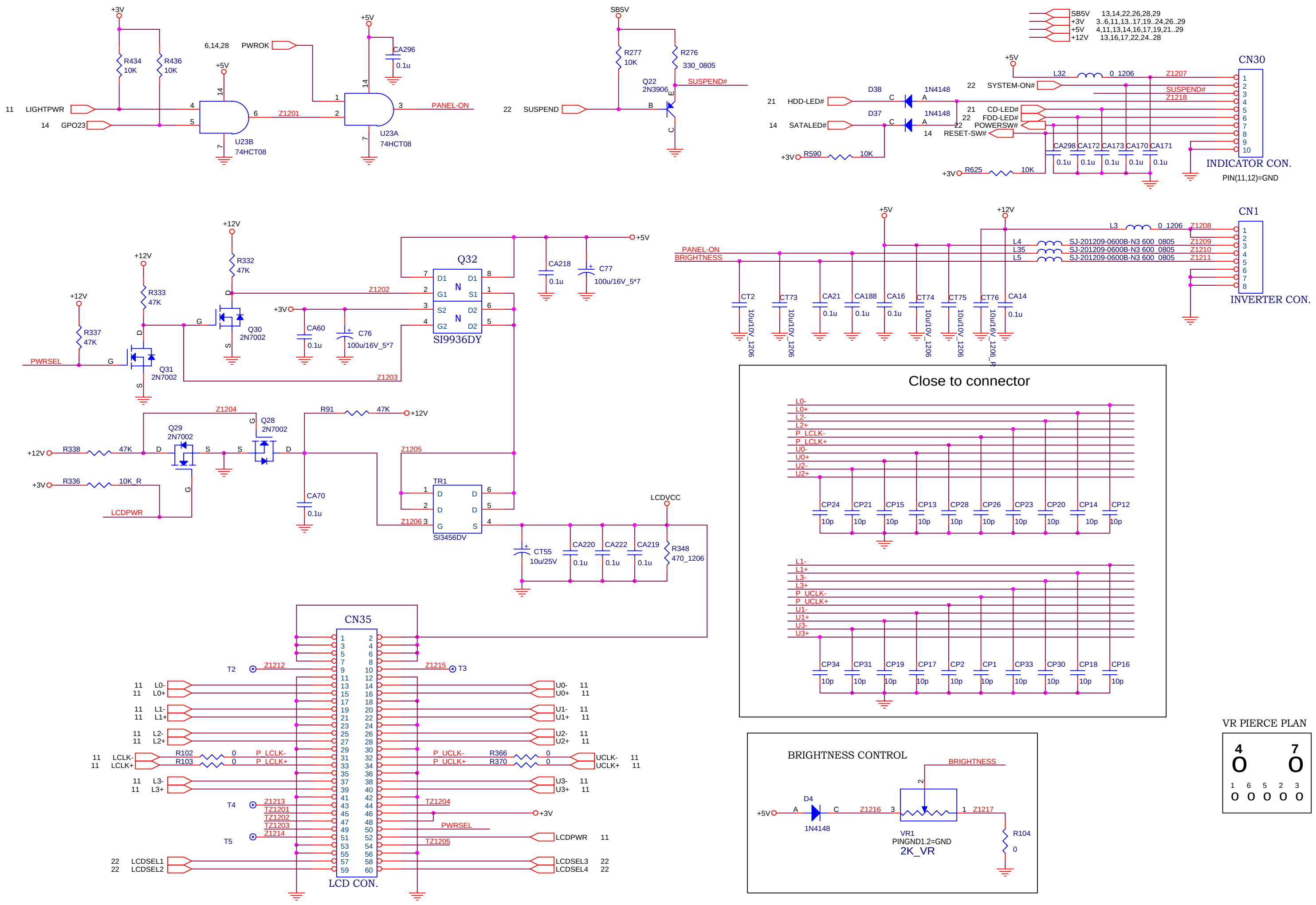
DVO Chrontel CH7107A

Sheet 11 of 29
DVO Chrontel
CH7107A



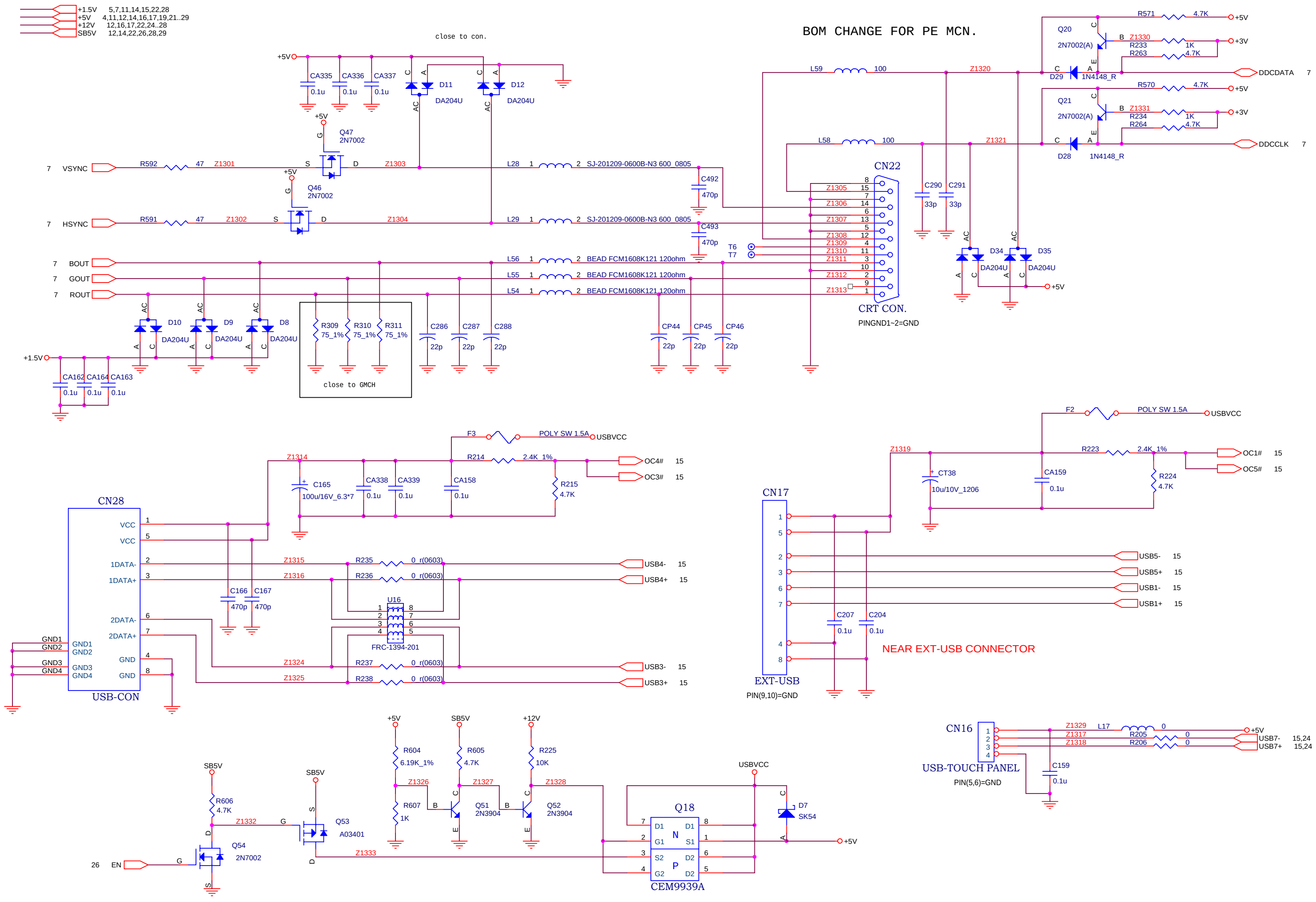
LCD Connector

Sheet 12 of 29
LCD Connector



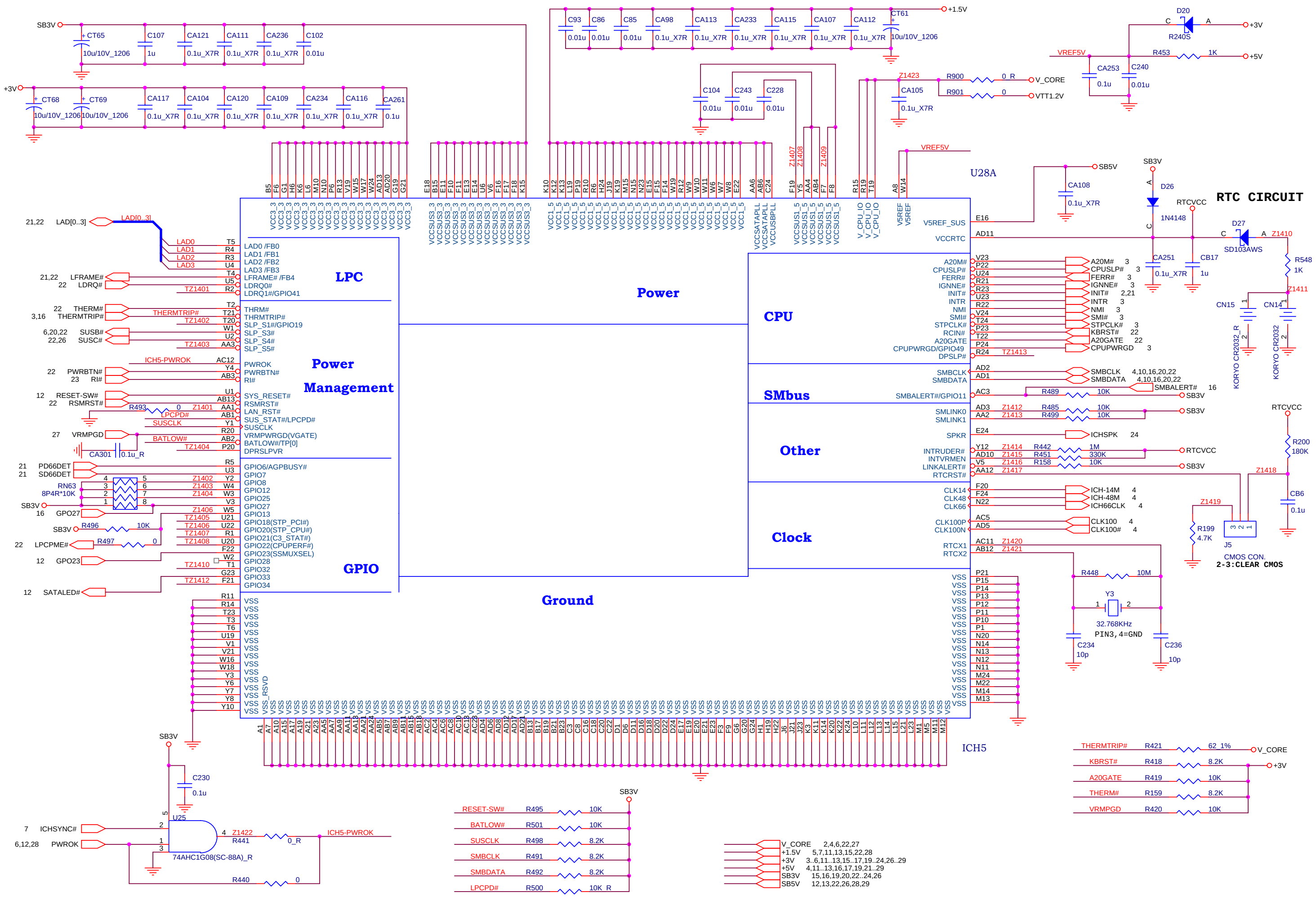
CRT & USB

Sheet 13 of 29
CRT & USB



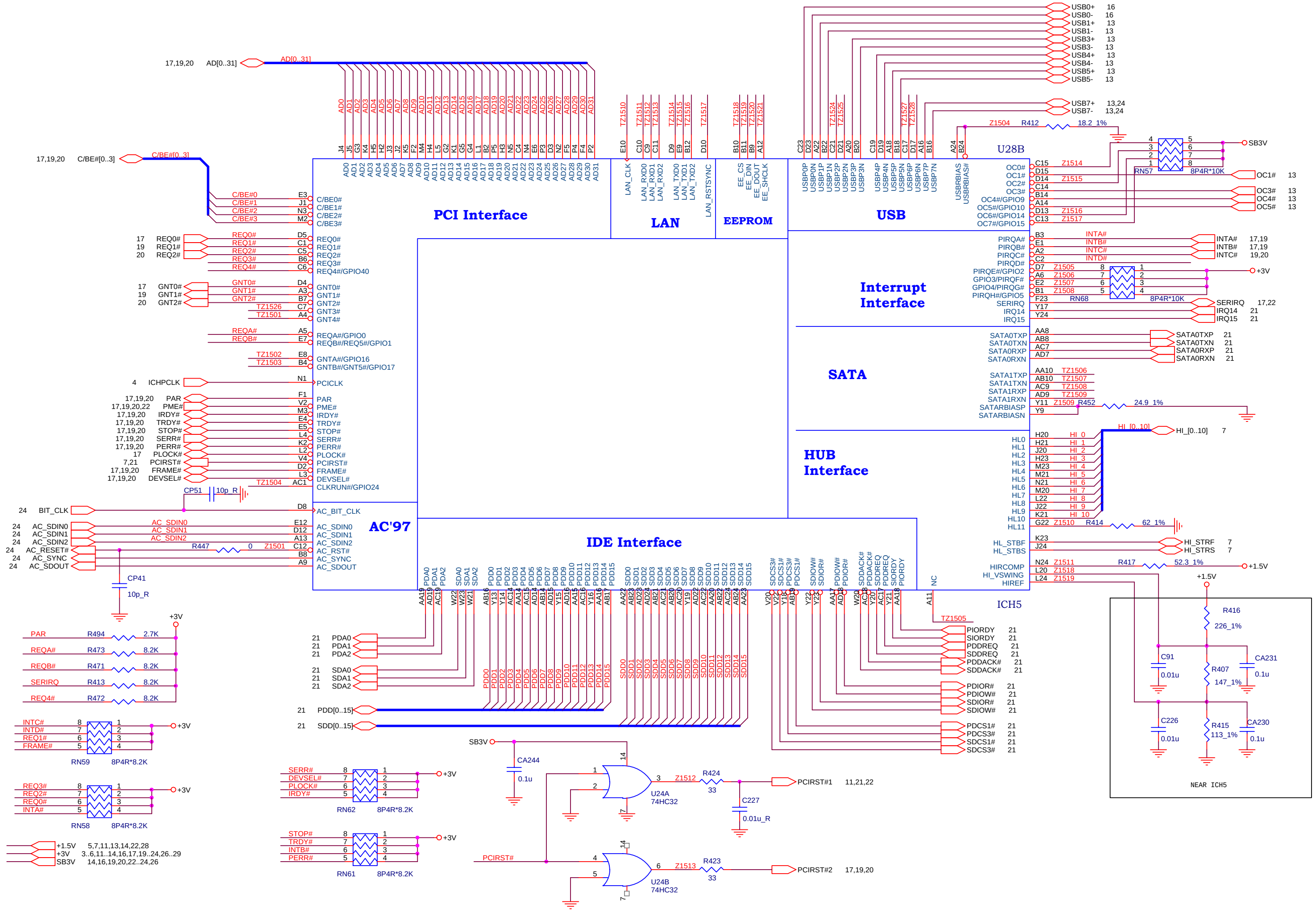
ICH5 (Power, LPC, Clock, SMbus)

Sheet 14 of 29
ICH5 (Power, LPC,
Clock, SMbus)



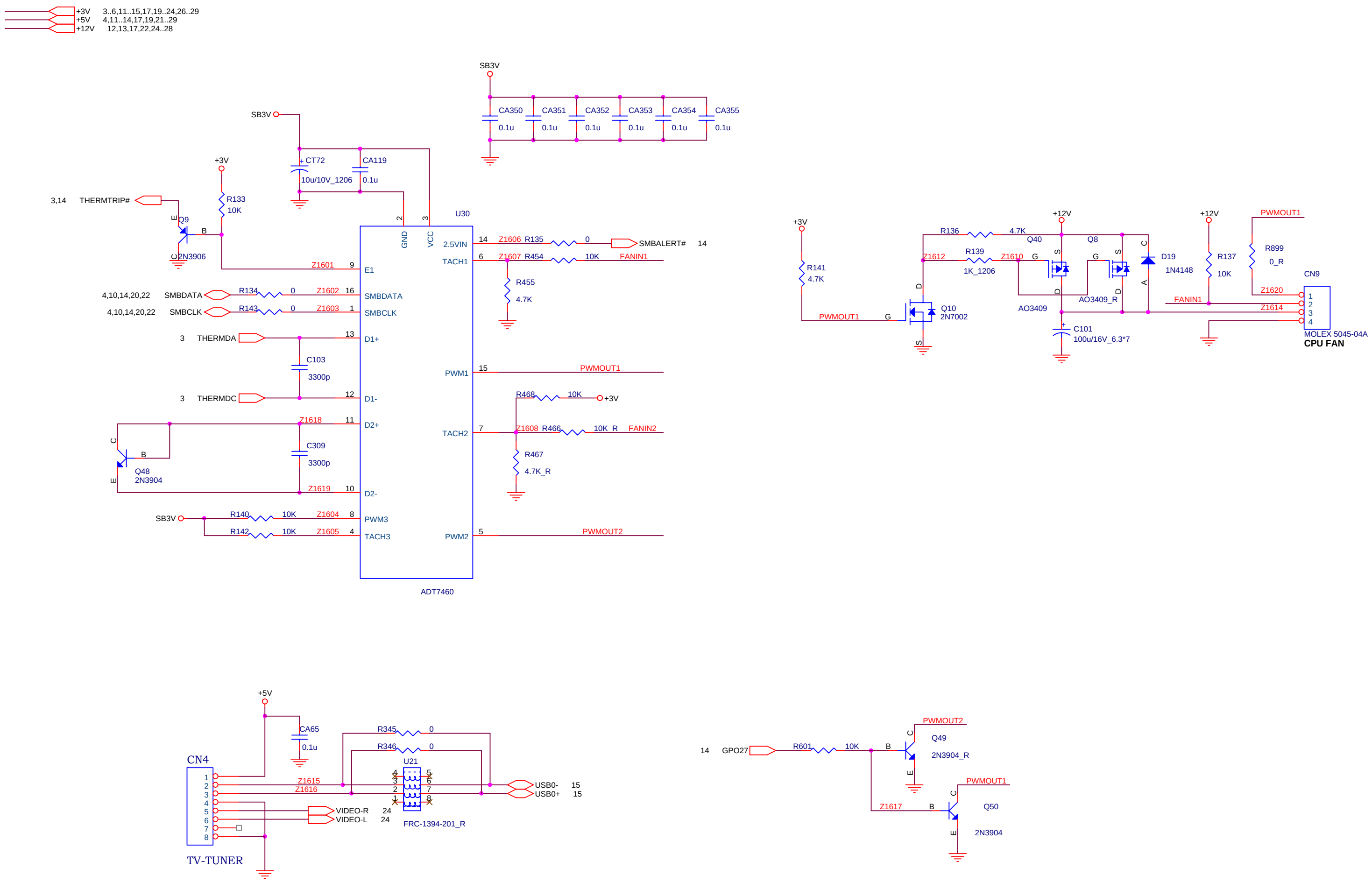
ICH5 (PCI, IDE, UHB, USB, LAN)

Sheet 15 of 29
ICH5 (PCI, IDE, UHB, USB, LAN)



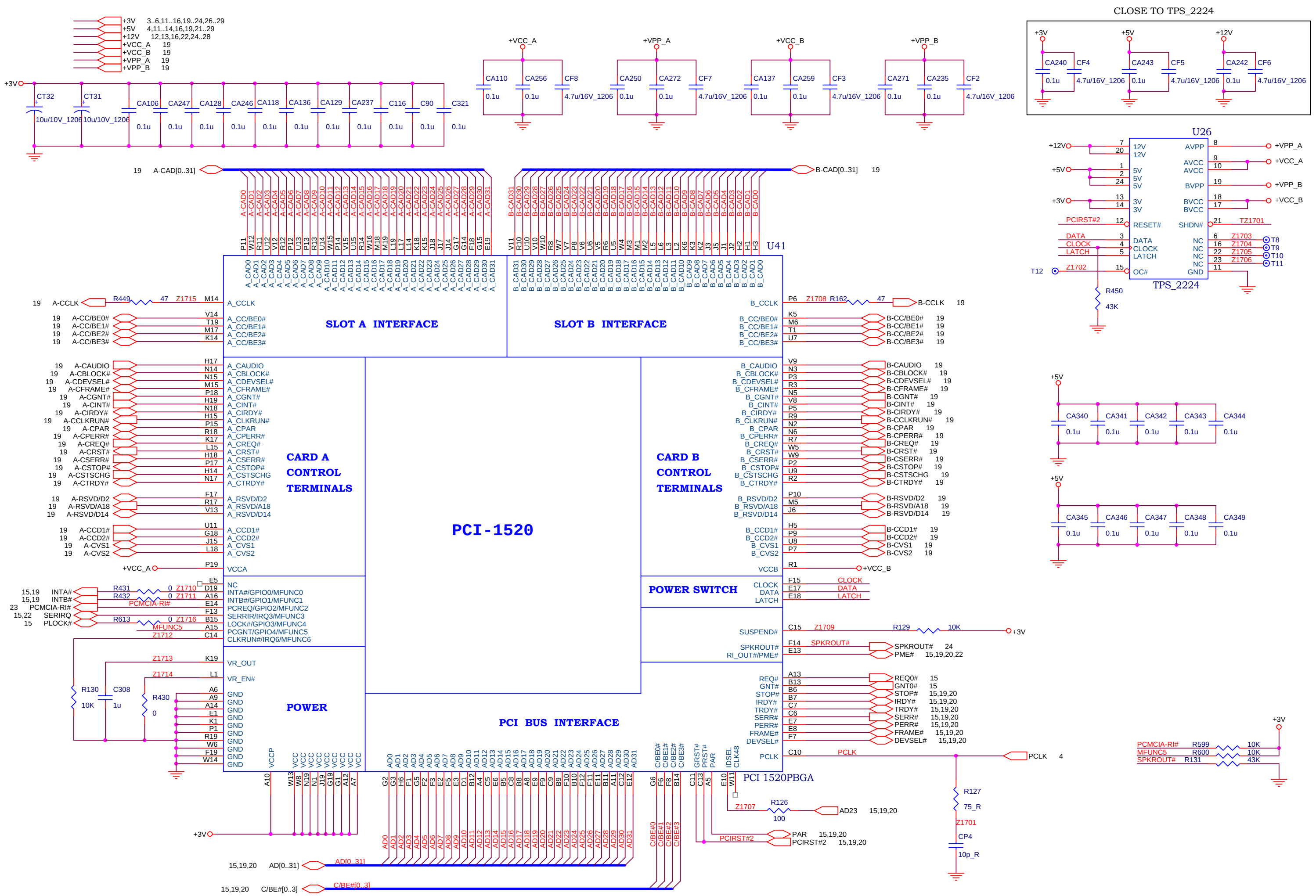
Thermal & Fan Controller

Sheet 16 of 29
Thermal & Fan
Controller



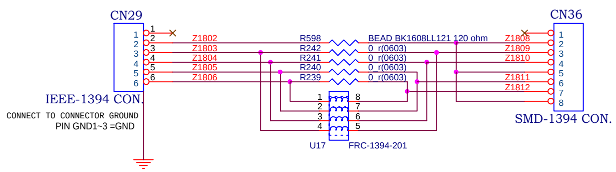
Cardbus PCI1520

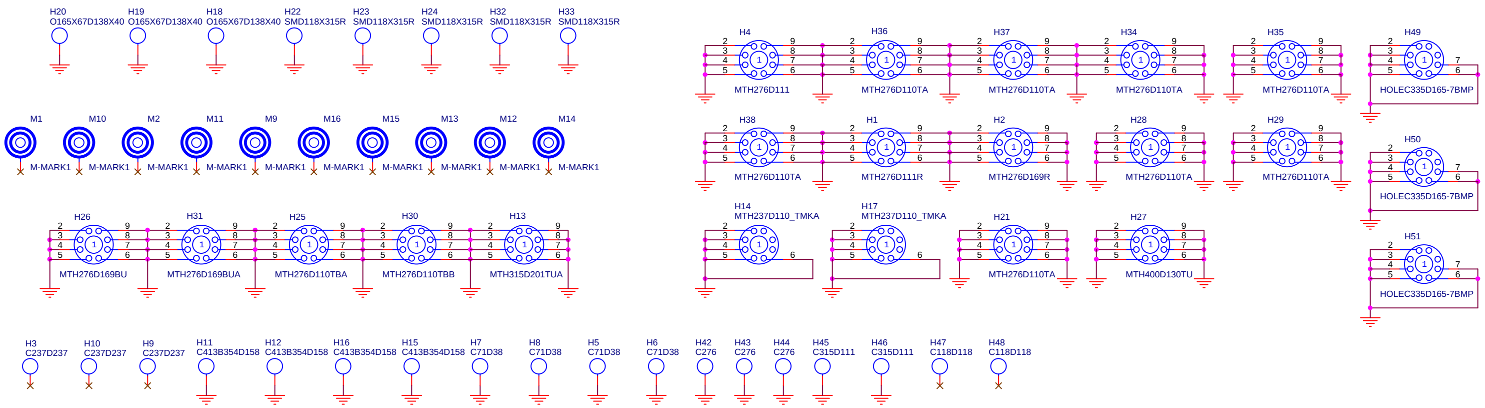
Sheet 17 of 29
Cardbus PCI1520



IEEE 1394

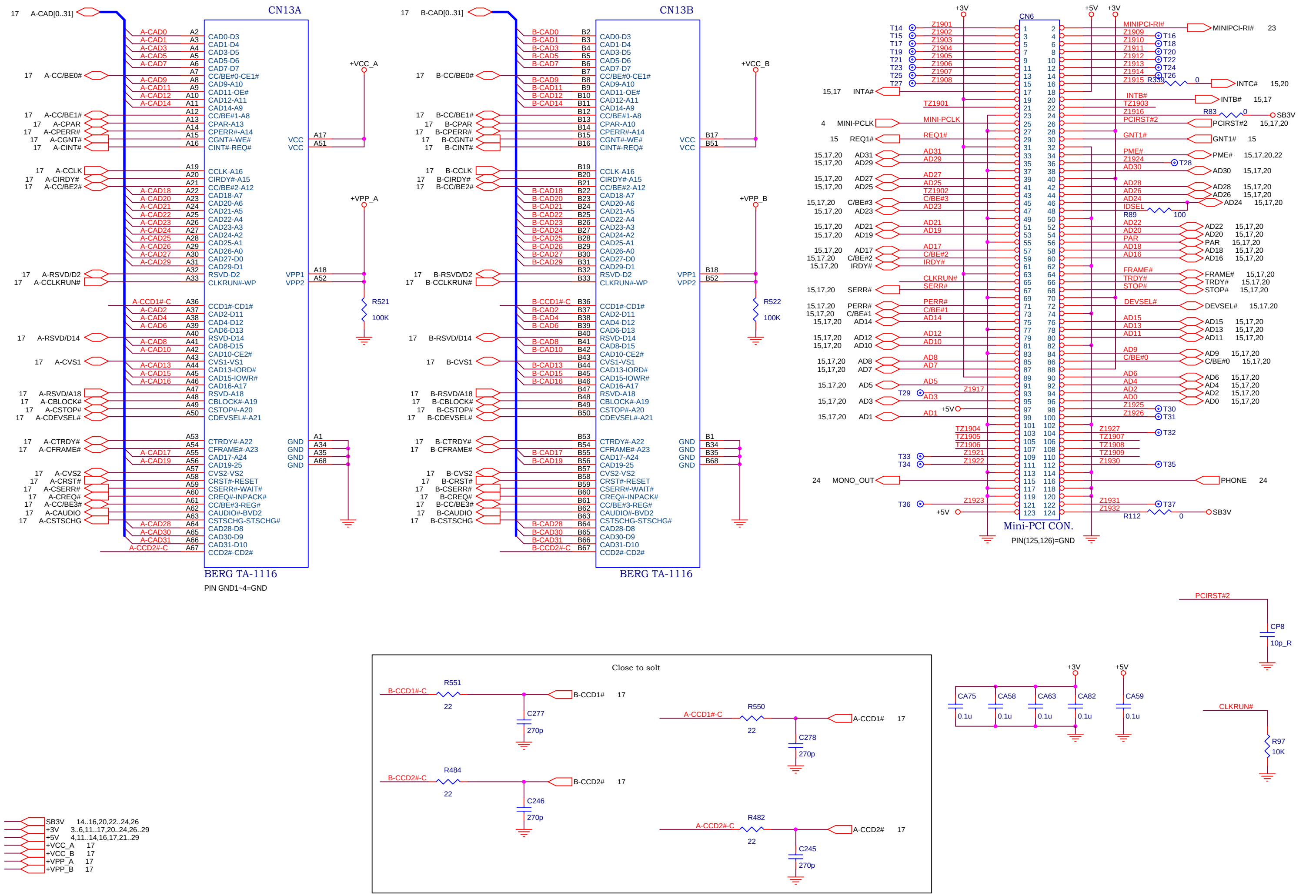
Sheet 18 of 29
IEEE 1394





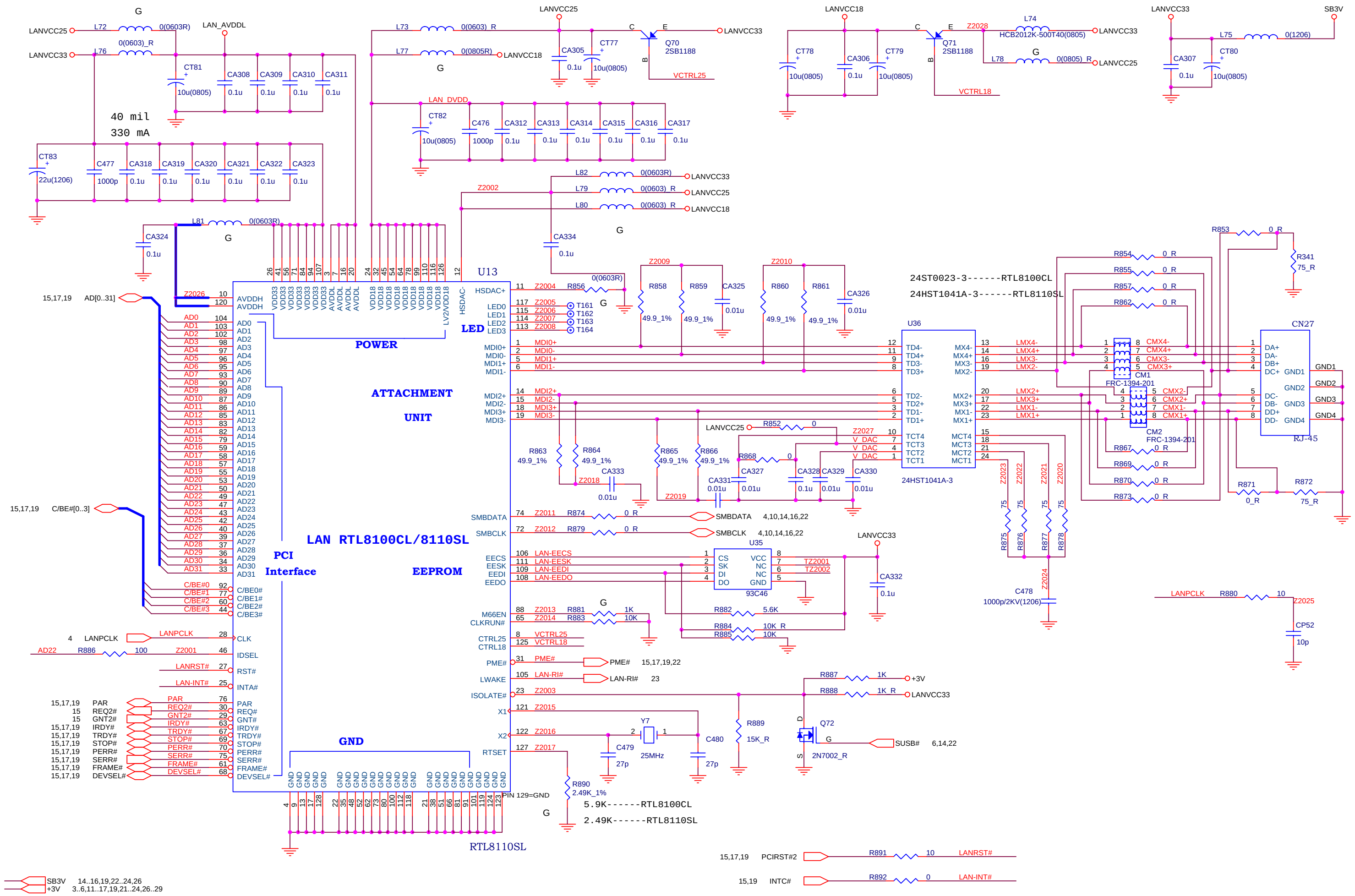
Cardbus Slot & Mini PCI

Sheet 19 of 29
Cardbus Slot &
Mini PCI



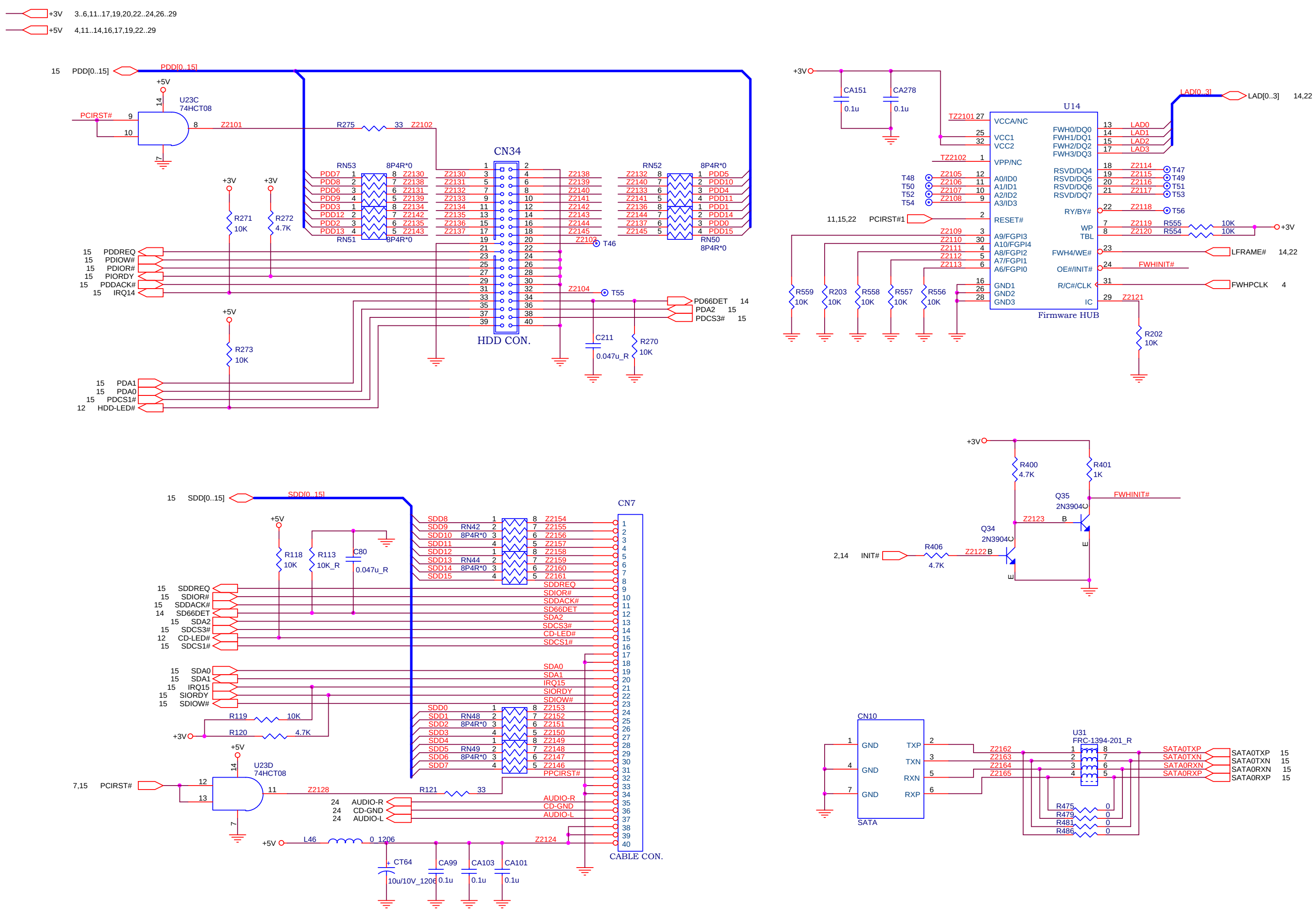
LAN RTL8100CL/8110SL

Sheet 20 of 29
LAN RTL8100CL/
8110SL



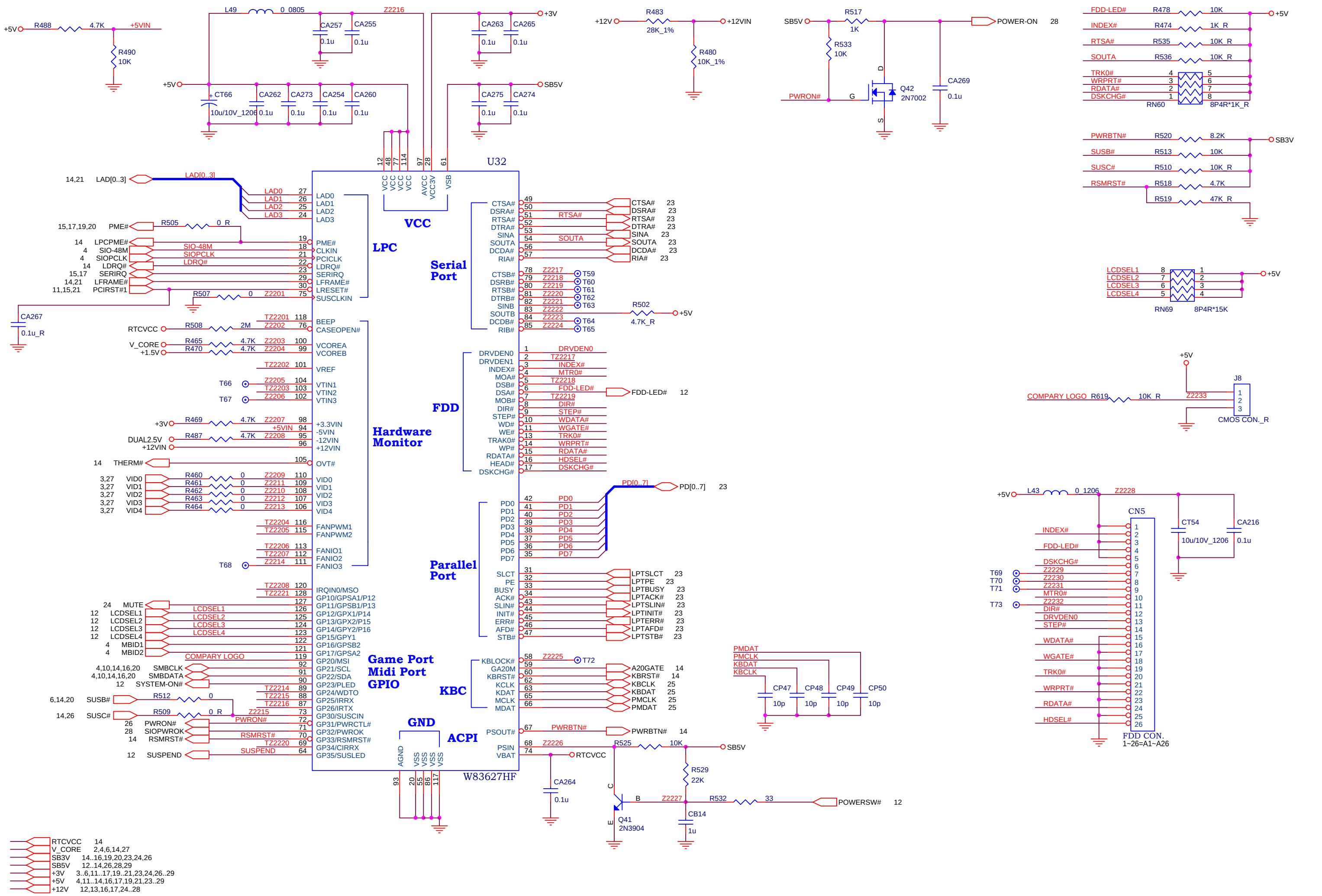
IDE Connector & Firmware Hub

Sheet 21 of 29
IDE Connector &
Firmware Hub



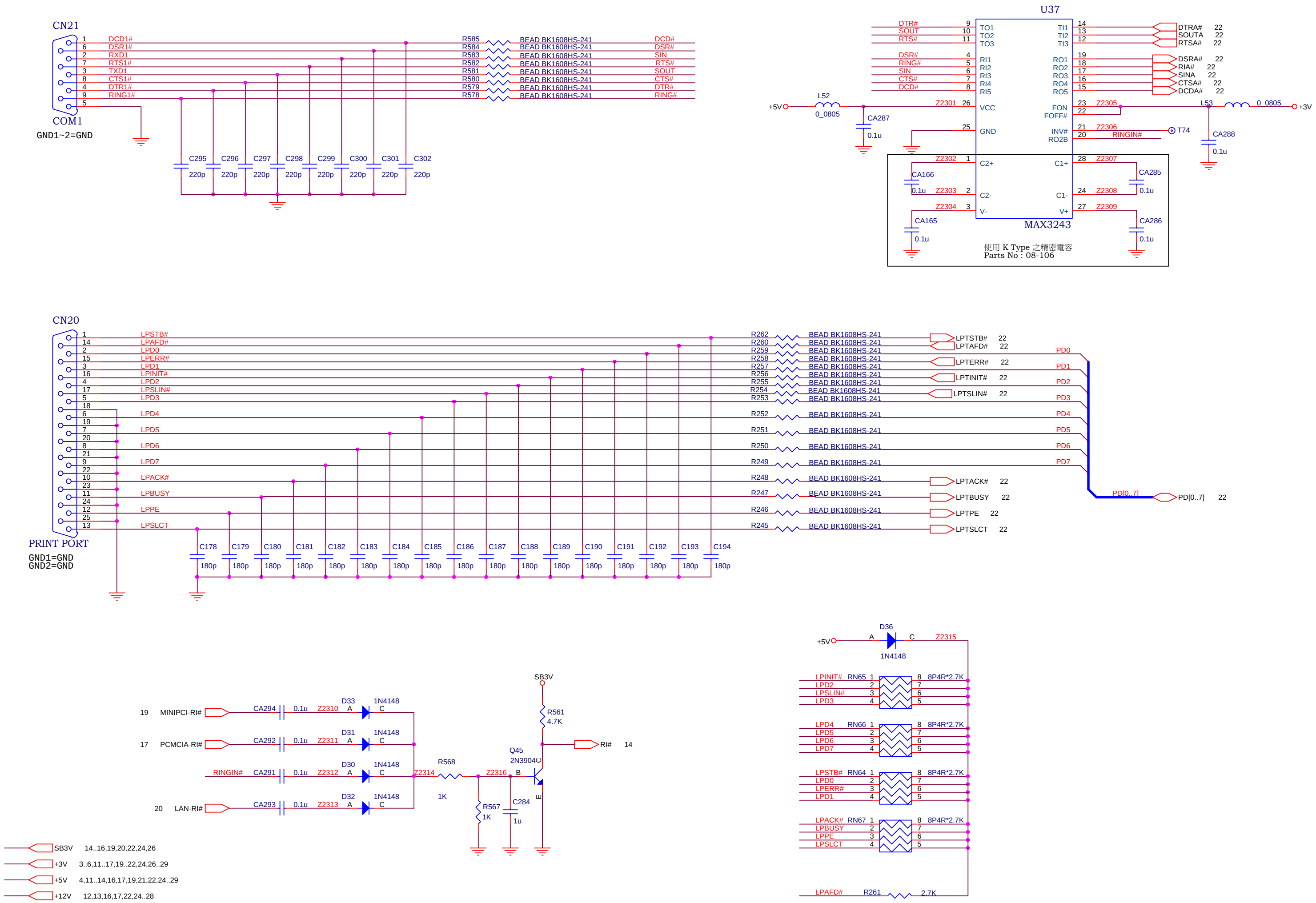
SIO W83627HF

Sheet 22 of 29
SIO W83627HF



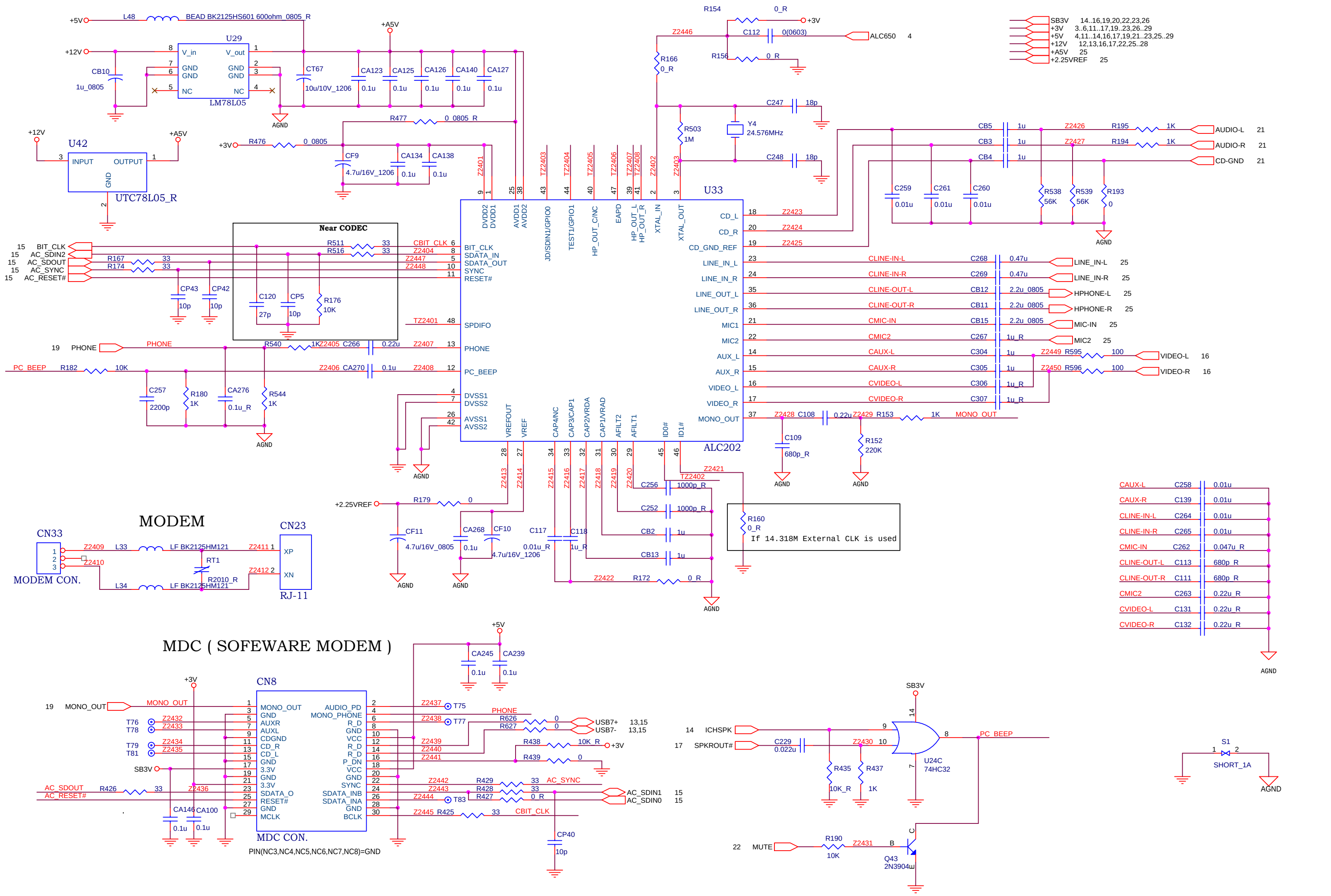
Serial & Parallel Port

Sheet 23 of 29
Serial & Parallel Port



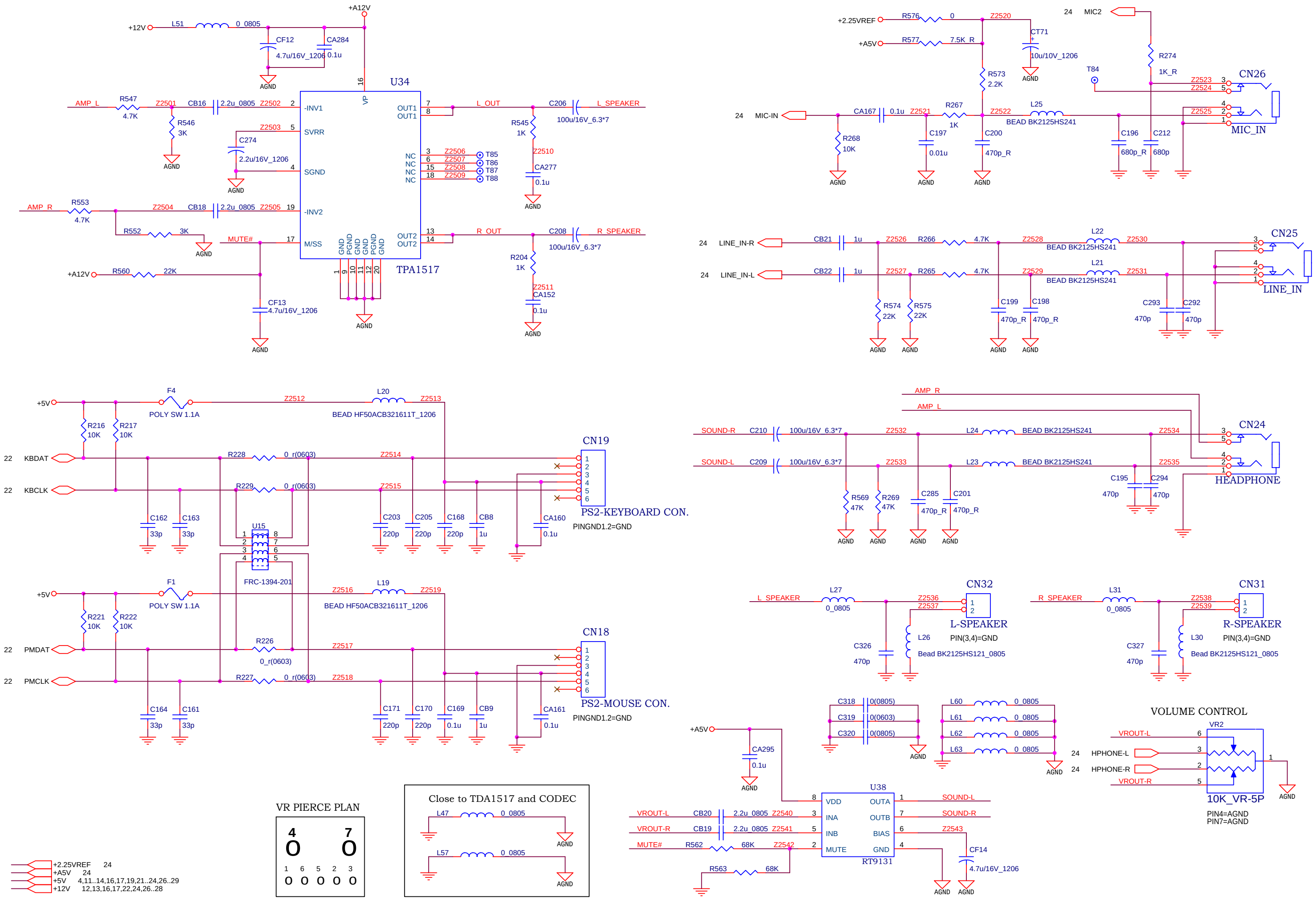
CODEC

Sheet 24 of 29
CODEC

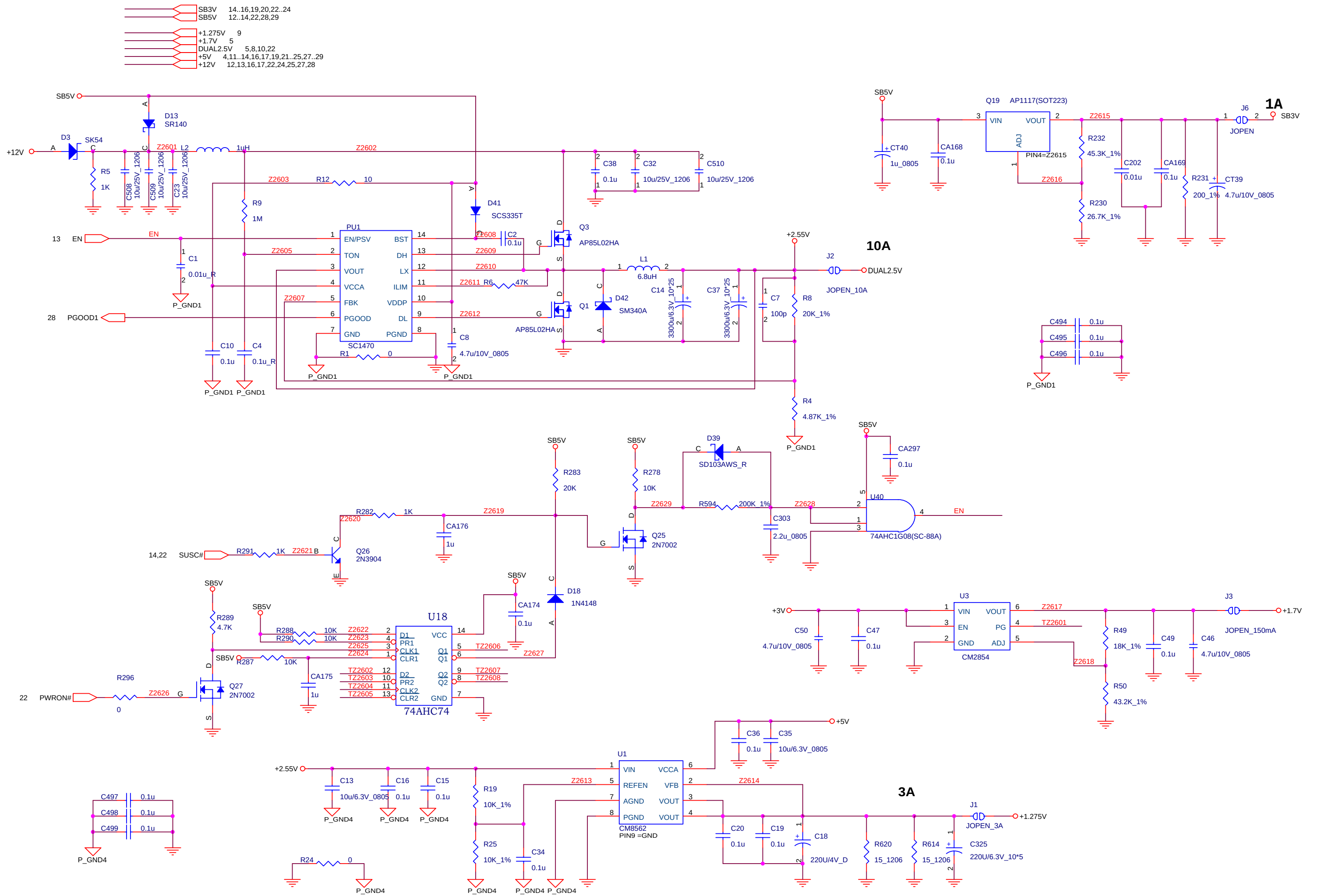


Amplifiers & Inverter Connector

Sheet 25 of 29
Amplifiers & Inverter Connector

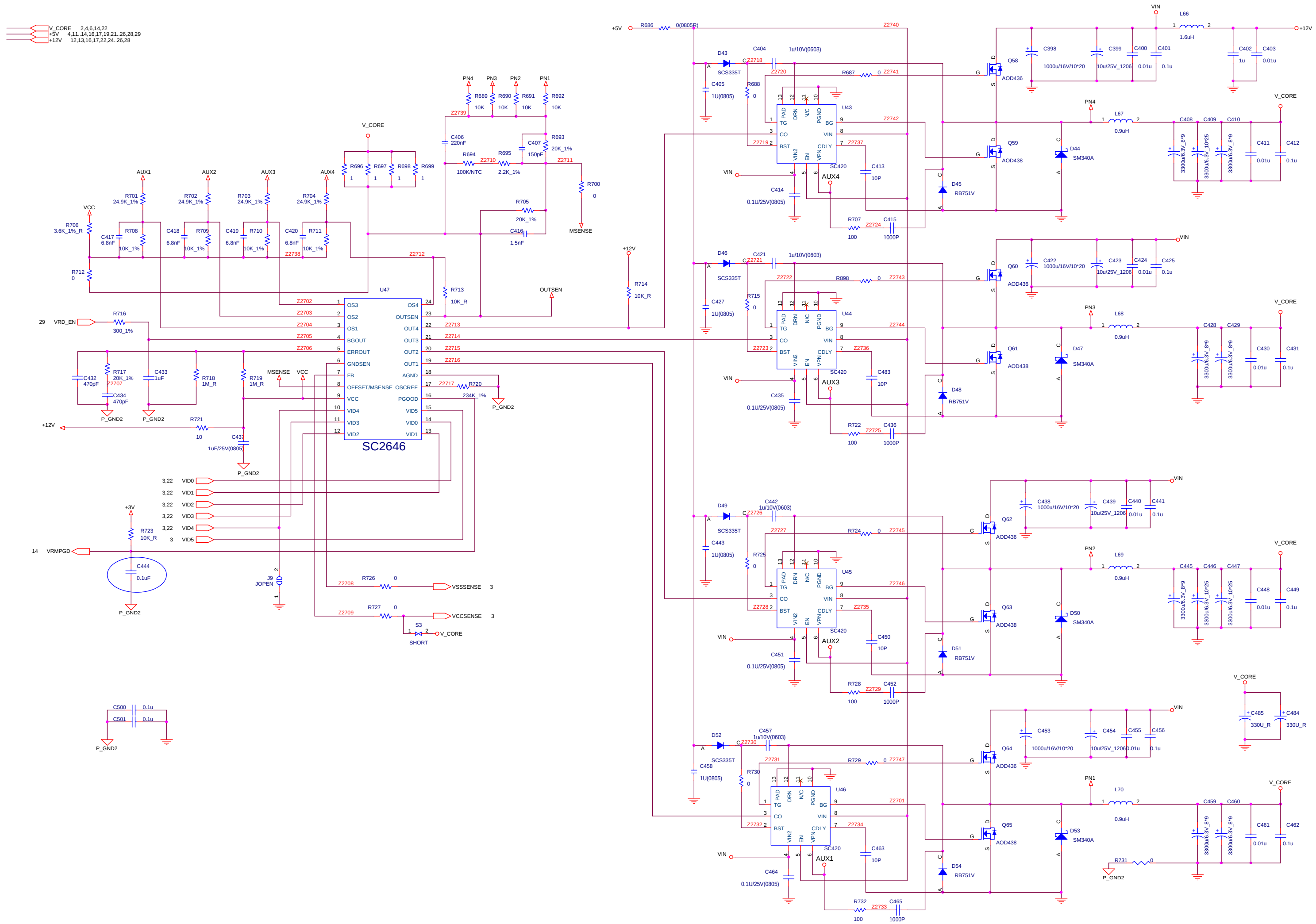


Power 1


SB3V 14..16,19,20,22..24
SB5V 12..14,22,28,29
+1.275V 9
+1.7V 5
DUAL2.5V 5,8,10,22
+5V 4,11..14,16,17,19,21..25,27..29
+12V 12,13,16,17,22,24,25,27,28
SB5V
+12V
D3
SK54
D13
SR140
R5
1K
L2
1uH
Z2601
Z2602
Z2603
R12
10
R9
1M
D41
SCS335T
C38
0.1u
C32
10u/25V_1206
C510
10u/25V_1206
Q3
AP85L02HA
PU1
EN/PSV
TON
VOUT
VCCA
FBK
PGOOD
GND
BST
DH
LX
ILIM
VDDP
DL
PGND
SC1470
EN
13
28
PGOOD1
C1
0.01u_R
P_GND1
C10
0.1u
C4
0.1u_R
R1
0
C8
4.7u/10V_0805
C2
0.1u
R6
47K
Q1
AP85L02HA
L1
6.8uH
D42
SM340A
C14
3300u/6.3V_10*25
C37
3300u/6.3V_10*25
C7
100p
R8
20K_1%
+2.55V
10A
J2
JOPEN_10A
DUAL2.5V
R4
4.87K_1%
Q19
AP1117(SOT223)
VIN
VOUT
ADJ
PIN4=Z2615
1A
J6
JOPEN
SB3V
CT40
1u_0805
CA168
0.1u
R232
45.3K_1%
C202
0.01u
CA169
0.1u
R231
200_1%
CT39
4.7u/10V_0805
R230
26.7K_1%
C494
C495
C496
0.1u
D39
SD103AWS_R
CA297
0.1u
R283
20K
R278
10K
R594
200K_1%
C303
2.2u_0805
U40
74AHC1G08(SC-88A)
Q25
2N7002
R282
1K
CA176
1u
Q26
2N3904
R291
1K
14,22
SUSC#
D18
1N4148
CA174
0.1u
U18
74AHC74
R288
10K
R290
10K
R289
4.7K
R287
10K
CA175
1u
Q27
2N7002
R296
0
22
PWRON#
U3
CM2854
VIN
VOUT
EN
PG
GND
ADJ
+3V
C50
4.7u/10V_0805
C47
0.1u
R49
18K_1%
R50
43.2K_1%
C49
0.1u
C46
4.7u/10V_0805
J3
JOPEN_150mA
+1.7V
U1
CM8562
VIN
VCCA
REFEN
VFB
AGND
VOUT
PGND
PIN9 =GND
C36
0.1u
C35
10u/6.3V_0805
+5V
C13
10u/6.3V_0805
C16
0.1u
C15
0.1u
R19
10K_1%
R25
10K_1%
C34
0.1u
R24
0
C497
C498
C499
P_GND4
C20
0.1u
C19
0.1u
C18
220U/4V_D
R620
15_1206
R614
15_1206
C325
220U/6.3V_10*5
3A
J1
JOPEN_3A
+1.275V

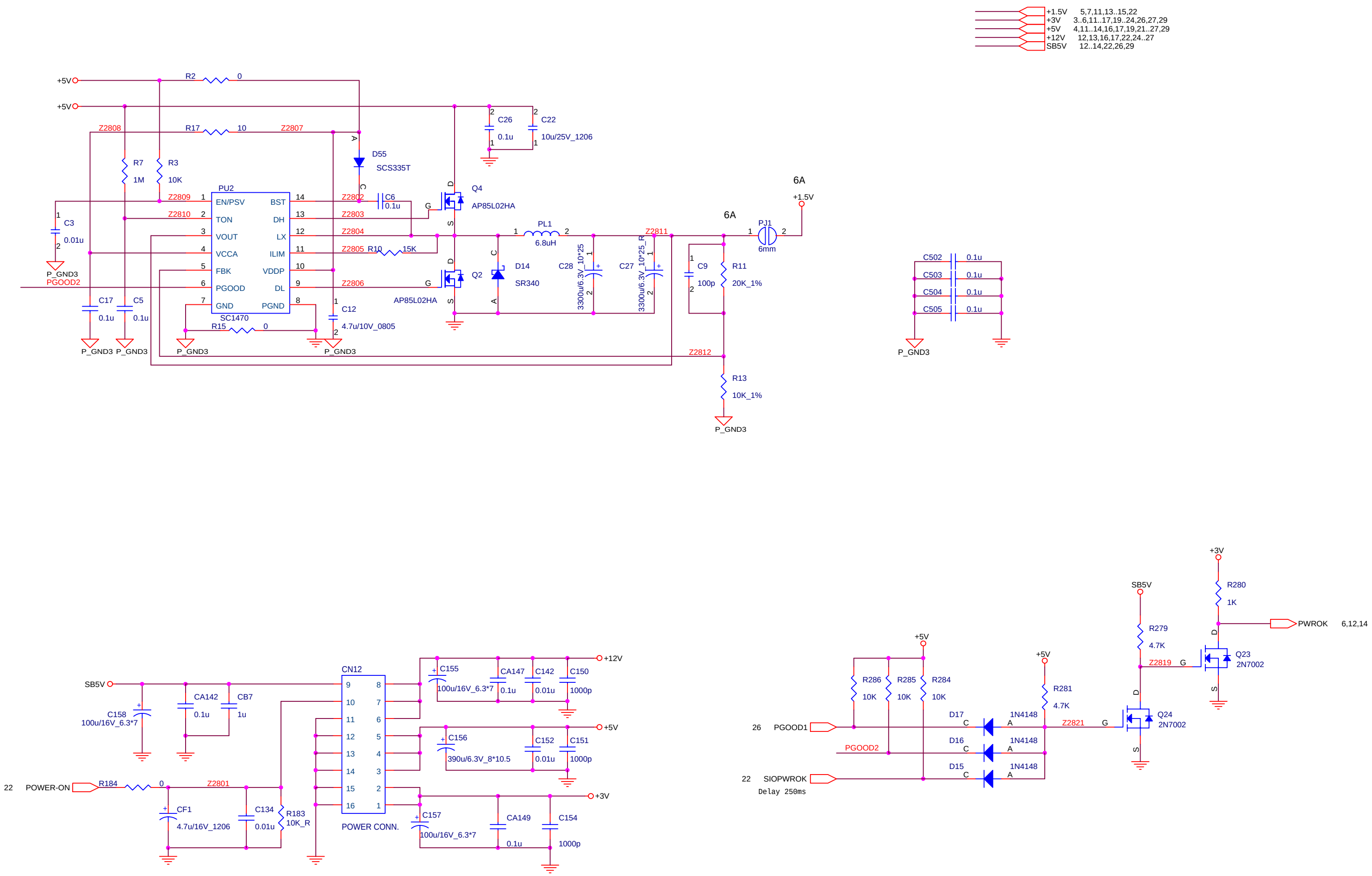
Power 2

Sheet 27 of 29
Power 2



Power 3

Sheet 28 of 29
Power 3



Power 4

Sheet 29 of 29
Power 4

